

SEQUENCE LISTING

<110> The University of Melbourne (All states, except U.S.)
Kent, Stephen J (U.S. only)

<120> Immunomodulating compositions, uses therefor and processes for their
production

<130> 12180502

<140> Unassigned

<141> 2004-06-10

<150> 2003902875

<151> 2003-06-10

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<151> 2004-03-25

<160> 2232

<170> PatentIn version 3.2

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Gln His Pro Gln Pro Ala Pro Gln Gln Gly Gln Leu Arg Glu Pro
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Pro Ala Pro Gln Gln Gly Gln Leu Arg Glu Pro Ser Gly Ser Asp
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Gln Gly Gln Leu Arg Glu Pro Ser Gly Ser Asp Ile Ala Gly Thr
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Arg Glu Pro Ser Gly Ser Asp Ile Ala Gly Thr Thr Ser Ser Val
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Gly Ser Asp Ile Ala Gly Thr Thr Ser Ser Val Asp Glu Gln Ile
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Ala	Gly	Thr	Thr	Ser	Ser	Val	Asp	Glu	Gln	Ile	Gln	Trp	Met	Tyr
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Ser	Ser	Val	Asp	Glu	Gln	Ile	Gln	Trp	Met	Tyr	Arg	Gln	Gln	Asn
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Trp	Met	Tyr	Arg	Gln	Gln	Asn	Pro	Ile	Pro	Val	Gly	Asn	Ile	Tyr
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Gln Gln Asn Pro Ile Pro Val Gly Asn Ile Tyr Arg Arg Trp Ile
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Arg Trp Ile Gln Leu Gly Leu Gln Lys Cys Val Arg Met Tyr Asn
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Thr	Asn	Ile	Leu	Asp	Val	Lys	Gln	Gly	Pro	Lys	Glu	Pro	Phe	Gln
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Asp	Val	Lys	Gln	Gly	Pro	Lys	Glu	Pro	Phe	Gln	Ser	Tyr	Val	Asp
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Gly Pro Lys Glu Pro Phe Gln Ser Tyr Val Asp Arg Phe Tyr Lys
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Phe Tyr Lys Ser Leu Arg Ala Glu Gln Thr Asp Ala Ala Val Lys
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Glu	Glu	Met	Leu	Thr	Ala	Cys	Gln	Gly	Val	Gly	Gly	Pro	Gly	Gln
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<223> SIV gag peptide 99

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Cys	Trp	Asn	Cys	Gly	Lys	Glu	Gly	His	Ser	Ala	Arg	Gln	Cys	Arg
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Gln	Cys	Arg	Ala	Pro	Arg	Arg	Gln	Gly	Cys	Trp	Lys	Cys	Gly	Lys
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Pro	Arg	Arg	Gln	Gly	Cys	Trp	Lys	Cys	Gly	Lys	Met	Asp	His	Val
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Cys	Gly	Lys	Met	Asp	His	Val	Met	Ala	Lys	Cys	Pro	Asp	Arg	Gln
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Asp	His	Val	Met	Ala	Lys	Cys	Pro	Asp	Arg	Gln	Ala	Gly	Phe	Leu
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Ala	Lys	Cys	Pro	Asp	Arg	Gln	Ala	Gly	Phe	Leu	Gly	Leu	Gly	Pro
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<223> SIV gag peptide 108

<400> 108

Asp Arg Gln Ala Gly Phe Leu Gly Leu Gly Pro Trp Gly Lys Lys
1 5 10 15

<210> 109

<211> 15

<212> PRT

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<220>

<223> SIV gag peptide 109

<400> 109

Gly Phe Leu Gly Leu Gly Pro Trp Gly Lys Lys Pro Arg Asn Phe
1 5 10 15

<210> 110

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<220>

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<400> 110

Leu Gly Pro Trp Gly Lys Lys Pro Arg Asn Phe Pro Met Ala Gln
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<400> 111

Gly Lys Lys Pro Arg Asn Phe Pro Met Ala Gln Val His Gln Gly
1 5 10 15

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Arg Asn Phe Pro Met Ala Gln Val His Gln Gly Leu Met Pro Thr
 1 5 10 15

<210> 113
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<400> 113

Met Ala Gln Val His Gln Gly Leu Met Pro Thr Ala Pro Pro Glu
 1 5 10 15

<210> 114
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<400> 114

His Gln Gly Leu Met Pro Thr Ala Pro Pro Glu Asp Pro Ala Val
 1 5 10 15

<210> 115
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<400> 115

Met Pro Thr Ala Pro Pro Glu Asp Pro Ala Val Asp Leu Leu Lys
 1 5 10 15

<210> 116
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<400> 116

Pro Pro Glu Asp Pro Ala Val Asp Leu Leu Lys Asn Tyr Met Gln
 1 5 10 15

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<220>
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Pro Ala Val Asp Leu Leu Lys Asn Tyr Met Gln Leu Gly Lys Gln
 1 5 10 15

<210> 118
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<220>
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<400> 118

Leu Leu Lys Asn Tyr Met Gln Leu Gly Lys Gln Gln Arg Glu Lys
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<210> 119
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Tyr Met Gln Leu Gly Lys Gln Gln Arg Glu Lys Gln Arg Glu Ser
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Gly Lys Gln Gln Arg Glu Lys Gln Arg Glu Ser Arg Glu Lys Pro
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Arg Glu Lys Gln Arg Glu Ser Arg Glu Lys Pro Tyr Lys Glu Val
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<223> SIV gag peptide 122

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Arg Glu Ser Arg Glu Lys Pro Tyr Lys Glu Val Thr Glu Asp Leu
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<223> SIV gag peptide 123

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Glu Lys Pro Tyr Lys Glu Val Thr Glu Asp Leu Leu His Leu Asn
1 5 10 15

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Lys Glu Val Thr Glu Asp Leu Leu His Leu Asn Ser Leu Phe Gly
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<210> 125

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Glu Asp Leu Leu His Leu Asn Ser Leu Phe Gly Gly Asp Gln
 1 5 10

<210> 126
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<400> 126

Val Leu Glu Leu Trp Glu Arg Gly Thr Leu Cys Lys Ala Met Gln
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<210> 127
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<400> 127

Trp Glu Arg Gly Thr Leu Cys Lys Ala Met Gln Ser Pro Lys Lys
 1 5 10 15

<210> 128
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<220>
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<400> 128

Thr Leu Cys Lys Ala Met Gln Ser Pro Lys Lys Thr Gly Met Leu
 1 5 10 15

<210> 129
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<220>
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<400> 129

Ala Met Gln Ser Pro Lys Lys Thr Gly Met Leu Glu Met Trp Lys
 1 5 10 15

<210> 130

<211> 15
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<220>
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<400> 130

Pro	Lys	Lys	Thr	Gly	Met	Leu	Glu	Met	Trp	Lys	Asn	Gly	Pro	Cys
1				5					10					15

<210> 131
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<220>
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<400> 131

Gly	Met	Leu	Glu	Met	Trp	Lys	Asn	Gly	Pro	Cys	Tyr	Gly	Gln	Met
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<210> 132
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<220>
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<400> 132

Met	Trp	Lys	Asn	Gly	Pro	Cys	Tyr	Gly	Gln	Met	Pro	Arg	Gln	Thr
1				5					10					15

<210> 133
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<220>
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<400> 133

Met	Trp	Lys	Asn	Gly	Pro	Cys	Tyr	Gly	Gln	Met	Pro	Arg	Gln	Thr
1				5					10					15

<210> 134
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<220>

<223> SIV pol peptide 9

<400> 134

Gly	Gln	Met	Pro	Arg	Gln	Thr	Gly	Gly	Phe	Phe	Arg	Pro	Trp	Ser
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<210> 135

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 10

<400> 135

Arg	Gln	Thr	Gly	Gly	Phe	Phe	Arg	Pro	Trp	Ser	Met	Gly	Lys	Glu
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<210> 136

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<220>

<223> SIV pol peptide 11

<400> 136

Gly	Phe	Phe	Arg	Pro	Trp	Ser	Met	Gly	Lys	Glu	Ala	Pro	Gln	Phe
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<210> 137

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 12

<400> 137

Pro	Trp	Ser	Met	Gly	Lys	Glu	Ala	Pro	Gln	Phe	Pro	His	Gly	Ser
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<210> 138

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 13

<400> 138

Gly	Lys	Glu	Ala	Pro	Gln	Phe	Pro	His	Gly	Ser	Ser	Ala	Ser	Gly
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1 5 10 15

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<220>
 <223> SIV pol peptide 14

<400> 139

Pro Gln Phe Pro His Gly Ser Ser Ala Ser Gly Ala Asp Ala Asn
 1 5 10 15

<210> 140
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<220>
 <223> SIV pol peptide 15

<400> 140

His Gly Ser Ser Ala Ser Gly Ala Asp Ala Asn Cys Ser Pro Arg
 1 5 10 15

<210> 141
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 16

<400> 141

Ala Ser Gly Ala Asp Ala Asn Cys Ser Pro Arg Gly Pro Ser Cys
 1 5 10 15

<210> 142
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 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 17

<400> 142

Asp Ala Asn Cys Ser Pro Arg Gly Pro Ser Cys Gly Ser Ala Lys
 1 5 10 15

<210> 143
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<212> PRT
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<220>
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<400> 143

Ser	Pro	Arg	Gly	Pro	Ser	Cys	Gly	Ser	Ala	Lys	Glu	Leu	His	Ala
1				5					10					15

<210> 144
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<220>
 <223> SIV pol peptide 19

<400> 144

Pro	Ser	Cys	Gly	Ser	Ala	Lys	Glu	Leu	His	Ala	Val	Gly	Gln	Ala
1				5					10					15

<210> 145
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<220>
 <223> SIV pol peptide 20

<400> 145

Ser	Ala	Lys	Glu	Leu	His	Ala	Val	Gly	Gln	Ala	Ala	Glu	Arg	Lys
1				5					10					15

<210> 146
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 <212> PRT
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<220>
 <223> SIV pol peptide 21

<400> 146

Leu	His	Ala	Val	Gly	Gln	Ala	Ala	Glu	Arg	Lys	Ala	Glu	Arg	Lys
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<210> 147
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 <212> PRT
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<220>
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<400> 147

Gly Gln Ala Ala Glu Arg Lys Ala Glu Arg Lys Gln Arg Glu Ala
1 5 10 15

<210> 148

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 23

<400> 148

Glu Arg Lys Ala Glu Arg Lys Gln Arg Glu Ala Leu Gln Gly Gly
1 5 10 15

<210> 149

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 24

<400> 149

Glu Arg Lys Gln Arg Glu Ala Leu Gln Gly Gly Asp Arg Gly Phe
1 5 10 15

<210> 150

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 25

<400> 150

Arg Glu Ala Leu Gln Gly Gly Asp Arg Gly Phe Ala Ala Pro Gln
1 5 10 15

<210> 151

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 26

<400> 151

Gln Gly Gly Asp Arg Gly Phe Ala Ala Pro Gln Phe Ser Leu Trp
1 5 10 15

<210> 152
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<220>
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<400> 152

Arg Gly Phe Ala Ala Pro Gln Phe Ser Leu Trp Arg Arg Pro Val
1 5 10 15

<210> 153
<211> 15
<212> PRT
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<220>
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<400> 153

Ala Pro Gln Phe Ser Leu Trp Arg Arg Pro Val Val Thr Ala His
1 5 10 15

<210> 154
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<220>
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<400> 154

Ser Leu Trp Arg Arg Pro Val Val Thr Ala His Ile Glu Gly Gln
1 5 10 15

<210> 155
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<212> PRT
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<220>
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<400> 155

Arg Pro Val Val Thr Ala His Ile Glu Gly Gln Pro Val Glu Val
1 5 10 15

<210> 156
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<220>

<223> SIV pol peptide 31

<400> 156

Thr Ala His Ile Glu Gly Gln Pro Val Glu Val Leu Leu Asp Thr
1 5 10 15

<210> 157

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 32

<400> 157

Glu Gly Gln Pro Val Glu Val Leu Leu Asp Thr Gly Ala Asp Asp
1 5 10 15

<210> 158

<211> 15

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<213> Artificial

<220>

<223> SIV pol peptide 33

<400> 158

Val Glu Val Leu Leu Asp Thr Gly Ala Asp Asp Ser Ile Val Thr
1 5 10 15

<210> 159

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 34

<400> 159

Leu Asp Thr Gly Ala Asp Asp Ser Ile Val Thr Gly Ile Glu Leu
1 5 10 15

<210> 160

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 35

<400> 160

Ala Asp Asp Ser Ile Val Thr Gly Ile Glu Leu Gly Pro His Tyr
 1 5 10 15

<210> 161

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 36

<400> 161

Ile Val Thr Gly Ile Glu Leu Gly Pro His Tyr Thr Pro Lys Ile
 1 5 10 15

<210> 162

<211> 15

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<220>

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<400> 162

Ile Glu Leu Gly Pro His Tyr Thr Pro Lys Ile Val Gly Gly Ile
 1 5 10 15

<210> 163

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 38

<400> 163

Pro His Tyr Thr Pro Lys Ile Val Gly Gly Ile Gly Gly Phe Ile
 1 5 10 15

<210> 164

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 39

<400> 164

Pro Lys Ile Val Gly Gly Ile Gly Gly Phe Ile Asn Thr Lys Glu
 1 5 10 15

<210> 165
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 <212> PRT
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<220>
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<400> 165

Gly Gly Ile Gly Gly Phe Ile Asn Thr Lys Glu Tyr Lys Asn Val
 1 5 10 15

<210> 166
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<400> 166

Gly Phe Ile Asn Thr Lys Glu Tyr Lys Asn Val Glu Ile Glu Val
 1 5 10 15

<210> 167
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<400> 167

Thr Lys Glu Tyr Lys Asn Val Glu Ile Glu Val Leu Gly Lys Arg
 1 5 10 15

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<400> 168

Lys Asn Val Glu Ile Glu Val Leu Gly Lys Arg Ile Lys Gly Thr
 1 5 10 15

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Ile Glu Val Leu Gly Lys Arg Ile Lys Gly Thr Ile Met Thr Gly
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<210> 170

<211> 15

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Gly Lys Arg Ile Lys Gly Thr Ile Met Thr Gly Asp Thr Pro Ile
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<210> 171

<211> 15

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<223> SIV pol peptide 46

<400> 171

Lys Gly Thr Ile Met Thr Gly Asp Thr Pro Ile Asn Ile Phe Gly
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<210> 172

<211> 15

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<220>

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<400> 172

Met Thr Gly Asp Thr Pro Ile Asn Ile Phe Gly Arg Asn Leu Leu
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<210> 173

<211> 15

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<220>

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<400> 173

Thr Pro Ile Asn Ile Phe Gly Arg Asn Leu Leu Thr Ala Leu Gly
 1 5 10 15

<210> 174
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<400> 174

Ile Phe Gly Arg Asn Leu Leu Thr Ala Leu Gly Met Ser Leu Asn
 1 5 10 15

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Asn Leu Leu Thr Ala Leu Gly Met Ser Leu Asn Phe Pro Ile Ala
 1 5 10 15

<210> 176
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<400> 176

Ala Leu Gly Met Ser Leu Asn Phe Pro Ile Ala Lys Val Glu Pro
 1 5 10 15

<210> 177
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 <212> PRT
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<220>
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<400> 177

Ser Leu Asn Phe Pro Ile Ala Lys Val Glu Pro Val Lys Val Ala
 1 5 10 15

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<220>
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Pro Ile Ala Lys Val Glu Pro Val Lys Val Ala Leu Lys Pro Gly
1 5 10 15

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<210> 179
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<220>
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<400> 179

Val Glu Pro Val Lys Val Ala Leu Lys Pro Gly Lys Asp Gly Pro
1 5 10 15

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<210> 180
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<220>
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<400> 180

Lys Val Ala Leu Lys Pro Gly Lys Asp Gly Pro Lys Leu Lys Gln
1 5 10 15

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<220>
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<400> 181

Lys Pro Gly Lys Asp Gly Pro Lys Leu Lys Gln Trp Pro Leu Ser
1 5 10 15

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<220>

<223> SIV pol peptide 57

<400> 182

Asp	Gly	Pro	Lys	Leu	Lys	Gln	Trp	Pro	Leu	Ser	Lys	Glu	Lys	Ile
1				5					10					15

<210> 183

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<220>

<223> SIV pol peptide 58

<400> 183

Leu	Lys	Gln	Trp	Pro	Leu	Ser	Lys	Glu	Lys	Ile	Val	Ala	Leu	Arg
1				5					10					15

<210> 184

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<223> SIV pol peptide 59

<400> 184

Pro	Leu	Ser	Lys	Glu	Lys	Ile	Val	Ala	Leu	Arg	Glu	Ile	Cys	Glu
1				5					10					15

<210> 185

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<220>

<223> SIV pol peptide 60

<400> 185

Glu	Lys	Ile	Val	Ala	Leu	Arg	Glu	Ile	Cys	Glu	Lys	Met	Glu	Lys
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<210> 186

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 61

<400> 186

Ala Leu Arg Glu Ile Cys Glu Lys Met Glu Lys Asp Gly Gln Leu
 1 5 10 15

<210> 187
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<220>
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<400> 187

Ile Cys Glu Lys Met Glu Lys Asp Gly Gln Leu Glu Glu Ala Pro
 1 5 10 15

<210> 188
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<220>
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<400> 188

Met Glu Lys Asp Gly Gln Leu Glu Glu Ala Pro Pro Thr Asn Pro
 1 5 10 15

<210> 189
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<220>
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<400> 189

Gly Gln Leu Glu Glu Ala Pro Pro Thr Asn Pro Tyr Asn Thr Pro
 1 5 10 15

<210> 190
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 <212> PRT
 <213> Artificial

<220>
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<400> 190

Glu Ala Pro Pro Thr Asn Pro Tyr Asn Thr Pro Thr Phe Ala Ile
 1 5 10 15

<210> 191

<211> 15
<212> PRT
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<220>
<223> SIV pol peptide 66

<400> 191

Thr	Asn	Pro	Tyr	Asn	Thr	Pro	Thr	Phe	Ala	Ile	Lys	Lys	Lys	Asp
1				5					10					15

<210> 192
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<220>
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<400> 192

Asn	Thr	Pro	Thr	Phe	Ala	Ile	Lys	Lys	Lys	Asp	Lys	Asn	Lys	Trp
1				5					10					15

<210> 193
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<220>
<223> SIV pol peptide 68

<400> 193

Phe	Ala	Ile	Lys	Lys	Lys	Asp	Lys	Asn	Lys	Trp	Arg	Met	Leu	Ile
1				5					10					15

<210> 194
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<220>
<223> SIV pol peptide 69

<400> 194

Lys	Lys	Asp	Lys	Asn	Lys	Trp	Arg	Met	Leu	Ile	Asp	Phe	Arg	Glu
1				5					10					15

<210> 195
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<220>

<223> SIV pol peptide 70

<400> 195

Asn Lys Trp Arg Met Leu Ile Asp Phe Arg Glu Leu Asn Arg Val
1 5 10 15

<210> 196

<211> 15

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<220>

<223> SIV pol peptide 71

<400> 196

Met Leu Ile Asp Phe Arg Glu Leu Asn Arg Val Thr Gln Asp Phe
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<210> 197

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<220>

<223> SIV pol peptide 72

<400> 197

Phe Arg Glu Leu Asn Arg Val Thr Gln Asp Phe Thr Glu Val Gln
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<210> 198

<211> 15

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<220>

<223> SIV pol peptide 73

<400> 198 .

Asn Arg Val Thr Gln Asp Phe Thr Glu Val Gln Leu Gly Ile Pro
1 5 10 15

<210> 199

<211> 15

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<220>

<223> SIV pol peptide 74

<400> 199

Gln Asp Phe Thr Glu Val Gln Leu Gly Ile Pro His Pro Ala Gly

1 5 10 15

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<220>
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<400> 200

Glu Val Gln Leu Gly Ile Pro His Pro Ala Gly Leu Ala Lys Arg
1 5 10 15

<210> 201
<211> 15
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<220>
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<400> 201

Gly Ile Pro His Pro Ala Gly Leu Ala Lys Arg Lys Arg Ile Thr
1 5 10 15

<210> 202
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 77

<400> 202

Pro Ala Gly Leu Ala Lys Arg Lys Arg Ile Thr Val Leu Asp Ile
1 5 10 15

<210> 203
<211> 15
<212> PRT
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<220>
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<400> 203

Ala Lys Arg Lys Arg Ile Thr Val Leu Asp Ile Gly Asp Ala Tyr
1 5 10 15

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<212> PRT
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<220>
<223> SIV pol peptide 79

<400> 204

Arg Ile Thr Val Leu Asp Ile Gly Asp Ala Tyr Phe Ser Ile Pro
1 5 10 15

<210> 205
<211> 15
<212> PRT
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<220>
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<400> 205

Leu Asp Ile Gly Asp Ala Tyr Phe Ser Ile Pro Leu Asp Glu Glu
1 5 10 15

<210> 206
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<212> PRT
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<220>
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<400> 206

Asp Ala Tyr Phe Ser Ile Pro Leu Asp Glu Glu Phe Arg Gln Tyr
1 5 10 15

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<212> PRT
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<220>
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<400> 207

Ser Ile Pro Leu Asp Glu Glu Phe Arg Gln Tyr Thr Ala Phe Thr
1 5 10 15

<210> 208
<211> 15
<212> PRT
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<220>
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<400> 208

Asp Glu Glu Phe Arg Gln Tyr Thr Ala Phe Thr Leu Pro Ser Val
 1 5 10 15

<210> 209

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 84

<400> 209

Arg Gln Tyr Thr Ala Phe Thr Leu Pro Ser Val Asn Asn Ala Glu
 1 5 10 15

<210> 210

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 85

<400> 210

Ala Phe Thr Leu Pro Ser Val Asn Asn Ala Glu Pro Gly Lys Arg
 1 5 10 15

<210> 211

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 86

<400> 211

Pro Ser Val Asn Asn Ala Glu Pro Gly Lys Arg Tyr Ile Tyr Lys
 1 5 10 15

<210> 212

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 87

<400> 212

Asn Ala Glu Pro Gly Lys Arg Tyr Ile Tyr Lys Val Leu Pro Gln
 1 5 10 15

<210> 213
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 88

<400> 213

Gly Lys Arg Tyr Ile Tyr Lys Val Leu Pro Gln Gly Trp Lys Gly
1 5 10 15

<210> 214
<211> 15
<212> PRT
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<220>
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<400> 214

Ile Tyr Lys Val Leu Pro Gln Gly Trp Lys Gly Ser Pro Ala Ile
1 5 10 15

<210> 215
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<212> PRT
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<220>
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<400> 215

Leu Pro Gln Gly Trp Lys Gly Ser Pro Ala Ile Phe Gln Tyr Thr
1 5 10 15

<210> 216
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<212> PRT
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<220>
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<400> 216

Trp Lys Gly Ser Pro Ala Ile Phe Gln Tyr Thr Met Arg His Val
1 5 10 15

<210> 217
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<220>

<223> SIV pol peptide 92

<400> 217

Pro	Ala	Ile	Phe	Gln	Tyr	Thr	Met	Arg	His	Val	Leu	Glu	Pro	Phe
1				5					10					15

<210> 218

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 93

<400> 218

Gln	Tyr	Thr	Met	Arg	His	Val	Leu	Glu	Pro	Phe	Arg	Lys	Ala	Asn
1				5					10					15

<210> 219

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 94

<400> 219

Arg	His	Val	Leu	Glu	Pro	Phe	Arg	Lys	Ala	Asn	Pro	Asp	Val	Thr
1				5					10					15

<210> 220

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 95

<400> 220

Glu	Pro	Phe	Arg	Lys	Ala	Asn	Pro	Asp	Val	Thr	Leu	Val	Gln	Tyr
1				5					10					15

<210> 221

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 96

<400> 221

Lys Ala Asn Pro Asp Val Thr Leu Val Gln Tyr Met Asp Asp Ile
 1 5 10 15

<210> 222

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 97

<400> 222

Asp Val Thr Leu Val Gln Tyr Met Asp Asp Ile Leu Ile Ala Ser
 1 5 10 15

<210> 223

<211> 15

<212> PRT

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<223> SIV pol peptide 98

<400> 223

Val Gln Tyr Met Asp Asp Ile Leu Ile Ala Ser Asp Arg Thr Asp
 1 5 10 15

<210> 224

<211> 15

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<220>

<223> SIV pol peptide 99

<400> 224

Asp Asp Ile Leu Ile Ala Ser Asp Arg Thr Asp Leu Glu His Asp
 1 5 10 15

<210> 225

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<212> PRT

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<220>

<223> SIV pol peptide 100

<400> 225

Ile Ala Ser Asp Arg Thr Asp Leu Glu His Asp Arg Val Val Leu
 1 5 10 15

<210> 226
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<220>
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<400> 226

Arg Thr Asp Leu Glu His Asp Arg Val Val Leu Gln Ser Lys Glu
 1 5 10 15

<210> 227
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<220>
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<400> 227

Glu His Asp Arg Val Val Leu Gln Ser Lys Glu Leu Leu Asn Ser
 1 5 10 15

<210> 228
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 <212> PRT
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<220>
 <223> SIV pol peptide 103

<400> 228

Val Val Leu Gln Ser Lys Glu Leu Leu Asn Ser Ile Gly Phe Ser
 1 5 10 15

<210> 229
 <211> 15
 <212> PRT
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<220>
 <223> SIV pol peptide 104

<400> 229

Ser Lys Glu Leu Leu Asn Ser Ile Gly Phe Ser Thr Pro Glu Glu
 1 5 10 15

<210> 230
 <211> 15
 <212> PRT
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<220>

<223> SIV pol peptide 105

<400> 230

Leu	Asn	Ser	Ile	Gly	Phe	Ser	Thr	Pro	Glu	Glu	Lys	Phe	Gln	Lys
1				5					10					15

<210> 231

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<212> PRT

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<220>

<223> SIV pol peptide 106

<400> 231

Gly	Phe	Ser	Thr	Pro	Glu	Glu	Lys	Phe	Gln	Lys	Asp	Pro	Pro	Phe
1				5					10					15

<210> 232

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 107

<400> 232

Pro	Glu	Glu	Lys	Phe	Gln	Lys	Asp	Pro	Pro	Phe	Gln	Trp	Met	Gly
1				5					10					15

<210> 233

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 108

<400> 233

Phe	Gln	Lys	Asp	Pro	Pro	Phe	Gln	Trp	Met	Gly	Tyr	Glu	Leu	Trp
1				5					10					15

<210> 234

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 109

<400> 234

Pro Pro Phe Gln Trp Met Gly Tyr Glu Leu Trp Pro Thr Lys Trp
 1 5 10 15

<210> 235
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 110

<400> 235

Trp Met Gly Tyr Glu Leu Trp Pro Thr Lys Trp Lys Leu Gln Lys
 1 5 10 15

<210> 236
 <211> 15
 <212> PRT
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<220>
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<400> 236

Glu Leu Trp Pro Thr Lys Trp Lys Leu Gln Lys Ile Glu Leu Pro
 1 5 10 15

<210> 237
 <211> 15
 <212> PRT
 <213> Artificial

<220>
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<400> 237

Thr Lys Trp Lys Leu Gln Lys Ile Glu Leu Pro Gln Arg Glu Thr
 1 5 10 15

<210> 238
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 113

<400> 238

Leu Gln Lys Ile Glu Leu Pro Gln Arg Glu Thr Trp Thr Val Asn
 1 5 10 15

<210> 239
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 114

<400> 239

Glu	Leu	Pro	Gln	Arg	Glu	Thr	Trp	Thr	Val	Asn	Asp	Ile	Gln	Lys
1				5					10					15

<210> 240
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 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 115

<400> 240

Arg	Glu	Thr	Trp	Thr	Val	Asn	Asp	Ile	Gln	Lys	Leu	Val	Gly	Val
1				5					10					15

<210> 241
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 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 116

<400> 241

Thr	Val	Asn	Asp	Ile	Gln	Lys	Leu	Val	Gly	Val	Leu	Asn	Trp	Ala
1				5					10					15

<210> 242
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 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 117

<400> 242

Ile	Gln	Lys	Leu	Val	Gly	Val	Leu	Asn	Trp	Ala	Ala	Gln	Ile	Tyr
1				5					10					15

<210> 243
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 <212> PRT
 <213> Artificial

<220>

<223> SIV pol peptide 118

<400> 243

Val Gly Val Leu Asn Trp Ala Ala Gln Ile Tyr Pro Gly Ile Lys
1 5 10 15

<210> 244

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 119

<400> 244

Asn Trp Ala Ala Gln Ile Tyr Pro Gly Ile Lys Thr Lys His Leu
1 5 10 15

<210> 245

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 120

<400> 245

Gln Ile Tyr Pro Gly Ile Lys Thr Lys His Leu Cys Arg Leu Ile
1 5 10 15

<210> 246

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 121

<400> 246

Gly Ile Lys Thr Lys His Leu Cys Arg Leu Ile Arg Gly Lys Met
1 5 10 15

<210> 247

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 122

<400> 247

Lys His Leu Cys Arg Leu Ile Arg Gly Lys Met Thr Leu Thr Glu
 1 5 10 15

<210> 248
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 123

<400> 248

Arg Leu Ile Arg Gly Lys Met Thr Leu Thr Glu Glu Val Gln Trp
 1 5 10 15

<210> 249
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 124

<400> 249

Gly Lys Met Thr Leu Thr Glu Glu Val Gln Trp Thr Glu Met Ala
 1 5 10 15

<210> 250
 <211> 15
 <212> PRT
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<220>
 <223> SIV pol peptide 125

<400> 250

Leu Thr Glu Glu Val Gln Trp Thr Glu Met Ala Glu Ala Glu Tyr
 1 5 10 15

<210> 251
 <211> 15
 <212> PRT
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<220>
 <223> SIV pol peptide 126

<400> 251

Val Gln Trp Thr Glu Met Ala Glu Ala Glu Tyr Glu Glu Asn Lys
 1 5 10 15

<210> 252

<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 127

<400> 252

Glu Met Ala Glu Ala Glu Tyr Glu Glu Asn Lys Ile Ile Leu Ser
1 5 10 15

<210> 253
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 128

<400> 253

Ala Glu Tyr Glu Glu Asn Lys Ile Ile Leu Ser Gln Glu Gln Glu
1 5 10 15

<210> 254
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 129

<400> 254

Glu Asn Lys Ile Ile Leu Ser Gln Glu Gln Glu Gly Cys Tyr Tyr
1 5 10 15

<210> 255
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 130

<400> 255

Ile Leu Ser Gln Glu Gln Glu Gly Cys Tyr Tyr Gln Glu Gly Lys
1 5 10 15

<210> 256
<211> 15
<212> PRT
<213> Artificial

<220>

<223> SIV pol peptide 131

<400> 256

Glu Gln Glu Gly Cys Tyr Tyr Gln Glu Gly Lys Pro Leu Glu Ala
1 5 10 15

<210> 257

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 132

<400> 257

Cys Tyr Tyr Gln Glu Gly Lys Pro Leu Glu Ala Thr Val Ile Lys
1 5 10 15

<210> 258

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 133

<400> 258

Glu Gly Lys Pro Leu Glu Ala Thr Val Ile Lys Ser Gln Asp Asn
1 5 10 15

<210> 259

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 134

<400> 259

Leu Glu Ala Thr Val Ile Lys Ser Gln Asp Asn Gln Trp Ser Tyr
1 5 10 15

<210> 260

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 135

<400> 260

Val Ile Lys Ser Gln Asp Asn Gln Trp Ser Tyr Lys Ile His Gln

1 5 10 15

<210> 261
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 <212> PRT
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<220>
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<400> 261

Gln Asp Asn Gln Trp Ser Tyr Lys Ile His Gln Glu Asp Lys Ile
 1 5 10 15

<210> 262
 <211> 15
 <212> PRT
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<220>
 <223> SIV pol peptide 137

<400> 262

Trp Ser Tyr Lys Ile His Gln Glu Asp Lys Ile Leu Lys Val Gly
 1 5 10 15

<210> 263
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 <212> PRT
 <213> Artificial

<220>
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<400> 263

Ile His Gln Glu Asp Lys Ile Leu Lys Val Gly Lys Phe Ala Lys
 1 5 10 15

<210> 264
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 <212> PRT
 <213> Artificial

<220>
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<400> 264

Asp Lys Ile Leu Lys Val Gly Lys Phe Ala Lys Ile Lys Asn Thr
 1 5 10 15

<210> 265
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<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 140

<400> 265

Lys Val Gly Lys Phe Ala Lys Ile Lys Asn Thr His Thr Asn Gly
1 5 10 15

<210> 266
<211> 15
<212> PRT
<213> Artificial

<220>
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<400> 266

Phe Ala Lys Ile Lys Asn Thr His Thr Asn Gly Val Arg Leu Leu
1 5 10 15

<210> 267
<211> 15
<212> PRT
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<220>
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<400> 267

Lys Asn Thr His Thr Asn Gly Val Arg Leu Leu Ala His Val Ile
1 5 10 15

<210> 268
<211> 15
<212> PRT
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<220>
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<400> 268

Thr Asn Gly Val Arg Leu Leu Ala His Val Ile Gln Lys Ile Gly
1 5 10 15

<210> 269
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 144

<400> 269

Arg Leu Leu Ala His Val Ile Gln Lys Ile Gly Lys Glu Ala Ile
 1 5 10 15

<210> 270

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 145

<400> 270

His Val Ile Gln Lys Ile Gly Lys Glu Ala Ile Val Ile Trp Gly
 1 5 10 15

<210> 271

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 146

<400> 271

Lys Ile Gly Lys Glu Ala Ile Val Ile Trp Gly Gln Val Pro Lys
 1 5 10 15

<210> 272

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 147

<400> 272

Glu Ala Ile Val Ile Trp Gly Gln Val Pro Lys Phe His Leu Pro
 1 5 10 15

<210> 273

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 148

<400> 273

Ile Trp Gly Gln Val Pro Lys Phe His Leu Pro Val Glu Lys Asp
 1 5 10 15

<210> 274
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 149

<400> 274

Val Pro Lys Phe His Leu Pro Val Glu Lys Asp Val Trp Glu Gln
1 5 10 15

<210> 275
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<212> PRT
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<220>
<223> SIV pol peptide 150

<400> 275

His Leu Pro Val Glu Lys Asp Val Trp Glu Gln Trp Trp Thr Asp
1 5 10 15

<210> 276
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SIV pol peptide 151

<400> 276

Glu Lys Asp Val Trp Glu Gln Trp Trp Thr Asp Tyr Trp Gln Val
1 5 10 15

<210> 277
<211> 15
<212> PRT
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<220>
<223> SIV pol peptide 152

<400> 277

Trp Glu Gln Trp Trp Thr Asp Tyr Trp Gln Val Thr Trp Ile Pro
1 5 10 15

<210> 278
<211> 15
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<213> Artificial

<220>

<223> SIV pol peptide 153

<400> 278

Trp	Thr	Asp	Tyr	Trp	Gln	Val	Thr	Trp	Ile	Pro	Glu	Trp	Asp	Phe
1				5					10					15

<210> 279

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 154

<400> 279

Trp	Gln	Val	Thr	Trp	Ile	Pro	Glu	Trp	Asp	Phe	Ile	Ser	Thr	Pro
1				5					10					15

<210> 280

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 155

<400> 280

Trp	Ile	Pro	Glu	Trp	Asp	Phe	Ile	Ser	Thr	Pro	Pro	Leu	Val	Arg
1				5					10					15

<210> 281

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 156

<400> 281

Trp	Asp	Phe	Ile	Ser	Thr	Pro	Pro	Leu	Val	Arg	Leu	Val	Phe	Asn
1				5					10					15

<210> 282

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 157

<400> 282

Ser Thr Pro Pro Leu Val Arg Leu Val Phe Asn Leu Val Lys Asp
 1 5 10 15

<210> 283

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 158

<400> 283

Leu Val Arg Leu Val Phe Asn Leu Val Lys Asp Pro Ile Glu Gly
 1 5 10 15

<210> 284

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 159

<400> 284

Val Phe Asn Leu Val Lys Asp Pro Ile Glu Gly Glu Glu Thr Tyr
 1 5 10 15

<210> 285

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 160

<400> 285

Val Lys Asp Pro Ile Glu Gly Glu Glu Thr Tyr Tyr Thr Asp Gly
 1 5 10 15

<210> 286

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 161

<400> 286

Ile Glu Gly Glu Glu Thr Tyr Tyr Thr Asp Gly Ser Cys Asn Lys
 1 5 10 15

<210> 287
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 162

<400> 287

Glu Thr Tyr Tyr Thr Asp Gly Ser Cys Asn Lys Gln Ser Lys Glu
 1 5 10 15

<210> 288
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 163

<400> 288

Thr Asp Gly Ser Cys Asn Lys Gln Ser Lys Glu Gly Lys Ala Gly
 1 5 10 15

<210> 289
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 164

<400> 289

Cys Asn Lys Gln Ser Lys Glu Gly Lys Ala Gly Tyr Ile Thr Asp
 1 5 10 15

<210> 290
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 165

<400> 290

Ser Lys Glu Gly Lys Ala Gly Tyr Ile Thr Asp Arg Gly Lys Asp
 1 5 10 15

<210> 291
 <211> 15
 <212> PRT
 <213> Artificial

<220>

<223> SIV pol peptide 166

<400> 291

Lys	Ala	Gly	Tyr	Ile	Thr	Asp	Arg	Gly	Lys	Asp	Lys	Val	Lys	Val
1				5					10				15	

<210> 292

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 167

<400> 292

Ile	Thr	Asp	Arg	Gly	Lys	Asp	Lys	Val	Lys	Val	Leu	Glu	Gln	Thr
1				5					10				15	

<210> 293

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 168

<400> 293

Gly	Lys	Asp	Lys	Val	Lys	Val	Leu	Glu	Gln	Thr	Thr	Asn	Gln	Gln
1			5					10					15	

<210> 294

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 169

<400> 294

Val	Lys	Val	Leu	Glu	Gln	Thr	Thr	Asn	Gln	Gln	Ala	Glu	Leu	Glu
1			5					10					15	

<210> 295

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 170

<400> 295

Glu Gln Thr Thr Asn Gln Gln Ala Glu Leu Glu Ala Phe Leu Met
 1 5 10 15

<210> 296
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 171

<400> 296

Asn Gln Gln Ala Glu Leu Glu Ala Phe Leu Met Ala Leu Thr Asp
 1 5 10 15

<210> 297
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 172

<400> 297

Glu Leu Glu Ala Phe Leu Met Ala Leu Thr Asp Ser Gly Pro Lys
 1 5 10 15

<210> 298
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 173

<400> 298

Phe Leu Met Ala Leu Thr Asp Ser Gly Pro Lys Ala Asn Ile Ile
 1 5 10 15

<210> 299
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 174

<400> 299

Leu Thr Asp Ser Gly Pro Lys Ala Asn Ile Ile Val Asp Ser Gln
 1 5 10 15

<210> 300
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 175

<400> 300

Gly Pro Lys Ala Asn Ile Ile Val Asp Ser Gln Tyr Val Met Gly
 1 5 10 15

<210> 301
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 176

<400> 301

Asn Ile Ile Val Asp Ser Gln Tyr Val Met Gly Ile Ile Thr Gly
 1 5 10 15

<210> 302
 <211> 15
 <212> PRT
 <213> Artificial

<220>
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Asp Ser Gln Tyr Val Met Gly Ile Ile Thr Gly Cys Pro Thr Glu
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<220>
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Val Met Gly Ile Ile Thr Gly Cys Pro Thr Glu Ser Glu Ser Arg
 1 5 10 15

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 <212> PRT
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<223> SIV pol peptide 179

<400> 304

Ile Thr Gly Cys Pro Thr Glu Ser Glu Ser Arg Leu Val Asn Gln
1 5 10 15

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Pro Thr Glu Ser Glu Ser Arg Leu Val Asn Gln Ile Ile Glu Glu
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Glu Ser Arg Leu Val Asn Gln Ile Ile Glu Glu Met Ile Lys Lys
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Val Asn Gln Ile Ile Glu Glu Met Ile Lys Lys Ser Glu Ile Tyr
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<223> SIV pol peptide 183

<400> 308

Ile Glu Glu Met Ile Lys Lys Ser Glu Ile Tyr Val Ala Trp Val
 1 5 10 15

<210> 309
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<220>
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<400> 309

Ile Lys Lys Ser Glu Ile Tyr Val Ala Trp Val Pro Ala His Lys
 1 5 10 15

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<220>
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Glu Ile Tyr Val Ala Trp Val Pro Ala His Lys Gly Ile Gly Gly
 1 5 10 15

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Ala Trp Val Pro Ala His Lys Gly Ile Gly Gly Asn Gln Glu Ile
 1 5 10 15

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<400> 312

Ala His Lys Gly Ile Gly Gly Asn Gln Glu Ile Asp His Leu Val
 1 5 10 15

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Ile Gly Gly Asn Gln Glu Ile Asp His Leu Val Ser Gln Gly Ile
1 5 10 15

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<400> 314

Gln Glu Ile Asp His Leu Val Ser Gln Gly Ile Arg Gln Val Leu
1 5 10 15

<210> 315
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<212> PRT
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<400> 315

His Leu Val Ser Gln Gly Ile Arg Gln Val Leu Phe Leu Glu Lys
1 5 10 15

<210> 316
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<400> 316

Gln Gly Ile Arg Gln Val Leu Phe Leu Glu Lys Ile Glu Pro Ala
1 5 10 15

<210> 317
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<223> SIV pol peptide 192

<400> 317

Gln Val Leu Phe Leu Glu Lys Ile Glu Pro Ala Gln Glu Glu His
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<400> 318

Leu Glu Lys Ile Glu Pro Ala Gln Glu Glu His Asp Lys Tyr His
1 5 10 15

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<211> 15

<212> PRT

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<223> SIV pol peptide 194

<400> 319

Glu Pro Ala Gln Glu Glu His Asp Lys Tyr His Ser Asn Val Lys
1 5 10 15

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<223> SIV pol peptide 195

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Glu Glu His Asp Lys Tyr His Ser Asn Val Lys Glu Leu Val Phe
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<223> SIV pol peptide 196

<400> 321

Lys Tyr His Ser Asn Val Lys Glu Leu Val Phe Lys Phe Gly Leu

1 5 10 15

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<400> 322

Asn Val Lys Glu Leu Val Phe Lys Phe Gly Leu Pro Arg Ile Val
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Leu Val Phe Lys Phe Gly Leu Pro Arg Ile Val Ala Arg Gln Ile
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<400> 324

Phe Gly Leu Pro Arg Ile Val Ala Arg Gln Ile Val Asp Thr Cys
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Arg Ile Val Ala Arg Gln Ile Val Asp Thr Cys Asp Lys Cys His
1 5 10 15

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Arg Gln Ile Val Asp Thr Cys Asp Lys Cys His Gln Lys Gly Glu
1 5 10 15

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<400> 327

Asp Thr Cys Asp Lys Cys His Gln Lys Gly Glu Ala Ile His Gly
1 5 10 15

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Lys Cys His Gln Lys Gly Glu Ala Ile His Gly Gln Ala Asn Ser
1 5 10 15

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<220>
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<400> 329

Lys Gly Glu Ala Ile His Gly Gln Ala Asn Ser Asp Leu Gly Thr
1 5 10 15

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<400> 330

Ile	His	Gly	Gln	Ala	Asn	Ser	Asp	Leu	Gly	Thr	Trp	Gln	Met	Asp
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<210> 331

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<220>

<223> SIV pol peptide 206

<400> 331

Ala	Asn	Ser	Asp	Leu	Gly	Thr	Trp	Gln	Met	Asp	Cys	Thr	His	Leu
1				5					10					15

<210> 332

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 207

<400> 332

Leu	Gly	Thr	Trp	Gln	Met	Asp	Cys	Thr	His	Leu	Glu	Gly	Lys	Ile
1				5					10					15

<210> 333

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 208

<400> 333

Gln	Met	Asp	Cys	Thr	His	Leu	Glu	Gly	Lys	Ile	Ile	Ile	Val	Ala
1				5					10					15

<210> 334

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 209

<400> 334

Thr	His	Leu	Glu	Gly	Lys	Ile	Ile	Ile	Val	Ala	Val	His	Val	Ala
1				5					10					15

<210> 335
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<212> PRT
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<220>
<223> SIV pol peptide 210

<400> 335

Gly Lys Ile Ile Ile Val Ala Val His Val Ala Ser Gly Phe Ile
1 5 10 15

<210> 336
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<220>
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<400> 336

Ile Val Ala Val His Val Ala Ser Gly Phe Ile Glu Ala Glu Val
1 5 10 15

<210> 337
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<212> PRT
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<220>
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<400> 337

His Val Ala Ser Gly Phe Ile Glu Ala Glu Val Ile Pro Gln Glu
1 5 10 15

<210> 338
<211> 15
<212> PRT
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<220>
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<400> 338

Gly Phe Ile Glu Ala Glu Val Ile Pro Gln Glu Thr Gly Arg Gln
1 5 10 15

<210> 339
<211> 15
<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 214

<400> 339

Ala	Glu	Val	Ile	Pro	Gln	Glu	Thr	Gly	Arg	Gln	Thr	Ala	Leu	Phe
1				5					10					15

<210> 340

<211> 15

<212> PRT

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<220>

<223> SIV pol peptide 215

<400> 340

Pro	Gln	Glu	Thr	Gly	Arg	Gln	Thr	Ala	Leu	Phe	Leu	Leu	Lys	Leu
1				5					10					15

<210> 341

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<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 216

<400> 341

Gly	Arg	Gln	Thr	Ala	Leu	Phe	Leu	Leu	Lys	Leu	Ala	Gly	Arg	Trp
1				5					10					15

<210> 342

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 217

<400> 342

Ala	Leu	Phe	Leu	Leu	Lys	Leu	Ala	Gly	Arg	Trp	Pro	Ile	Thr	His
1				5					10					15

<210> 343

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 218

<400> 343

Leu Lys Leu Ala Gly Arg Trp Pro Ile Thr His Leu His Thr Asp
 1 5 10 15

<210> 344

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 219

<400> 344

Gly Arg Trp Pro Ile Thr His Leu His Thr Asp Asn Gly Ala Asn
 1 5 10 15

<210> 345

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<220>

<223> SIV pol peptide 220

<400> 345

Ile Thr His Leu His Thr Asp Asn Gly Ala Asn Phe Ala Ser Gln
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<400> 346

His Thr Asp Asn Gly Ala Asn Phe Ala Ser Gln Glu Val Lys Met
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<220>

<223> SIV pol peptide 222

<400> 347

Gly Ala Asn Phe Ala Ser Gln Glu Val Lys Met Val Ala Trp Trp
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<210> 348
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<220>
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<400> 348

Ala Ser Gln Glu Val Lys Met Val Ala Trp Trp Ala Gly Ile Glu
 1 5 10 15

<210> 349
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<220>
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<400> 349

Val Lys Met Val Ala Trp Trp Ala Gly Ile Glu His Thr Phe Gly
 1 5 10 15

<210> 350
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 <212> PRT
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<220>
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<400> 350

Ala Trp Trp Ala Gly Ile Glu His Thr Phe Gly Val Pro Tyr Asn
 1 5 10 15

<210> 351
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 <212> PRT
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<220>
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<400> 351

Gly Ile Glu His Thr Phe Gly Val Pro Tyr Asn Pro Gln Ser Gln
 i 5 10 15

<210> 352
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 <213> Artificial

<220>

<223> SIV pol peptide 227

<400> 352

Thr Phe Gly Val Pro Tyr Asn Pro Gln Ser Gln Gly Val Val Glu
1 5 10 15

<210> 353

<211> 15

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<213> Artificial

<220>

<223> SIV pol peptide 228

<400> 353

Pro Tyr Asn Pro Gln Ser Gln Gly Val Val Glu Ala Met Asn His
1 5 10 15

<210> 354

<211> 15

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<220>

<223> SIV pol peptide 229

<400> 354

Gln Ser Gln Gly Val Val Glu Ala Met Asn His His Leu Lys Asn
1 5 10 15

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<223> SIV pol peptide 230

<400> 355

Val Val Glu Ala Met Asn His His Leu Lys Asn Gln Ile Asp Arg
1 5 10 15

<210> 356

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<220>

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<400> 356

Met Asn His His Leu Lys Asn Gln Ile Asp Arg Ile Arg Glu Gln
 1 5 10 15

<210> 357
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<400> 357

Leu Lys Asn Gln Ile Asp Arg Ile Arg Glu Gln Ala Asn Ser Val
 1 5 10 15

<210> 358
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<220>
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<400> 358

Ile Asp Arg Ile Arg Glu Gln Ala Asn Ser Val Glu Thr Ile Val
 1 5 10 15

<210> 359
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<220>
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<400> 359

Arg Glu Gln Ala Asn Ser Val Glu Thr Ile Val Leu Met Ala Val
 1 5 10 15

<210> 360
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<220>
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<400> 360

Asn Ser Val Glu Thr Ile Val Leu Met Ala Val His Cys Met Asn
 1 5 10 15

<210> 361
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 <212> PRT
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<220>
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<400> 361

Thr Ile Val Leu Met Ala Val His Cys Met Asn Phe Lys Arg Arg
 1 5 10 15

<210> 362
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<220>
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<400> 362

Met Ala Val His Cys Met Asn Phe Lys Arg Arg Gly Gly Ile Gly
 1 5 10 15

<210> 363
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 <212> PRT
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<220>
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<400> 363

Cys Met Asn Phe Lys Arg Arg Gly Gly Ile Gly Asp Met Thr Pro
 1 5 10 15

<210> 364
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 <213> Artificial

<220>
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<400> 364

Lys Arg Arg Gly Gly Ile Gly Asp Met Thr Pro Ala Glu Arg Leu
 1 5 10 15

<210> 365
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<223> SIV pol peptide 240

<400> 365

Gly	Ile	Gly	Asp	Met	Thr	Pro	Ala	Glu	Arg	Leu	Ile	Asn	Met	Ile
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<210> 366

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<220>

<223> SIV pol peptide 241

<400> 366

Met	Thr	Pro	Ala	Glu	Arg	Leu	Ile	Asn	Met	Ile	Thr	Thr	Glu	Gln
1				5					10					15

<210> 367

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<213> Artificial

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<223> SIV pol peptide 242

<400> 367

Glu	Arg	Leu	Ile	Asn	Met	Ile	Thr	Thr	Glu	Gln	Glu	Ile	Gln	Phe
1				5					10					15

<210> 368

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<400> 368

Asn	Met	Ile	Thr	Thr	Glu	Gln	Glu	Ile	Gln	Phe	Gln	Gln	Ser	Lys
1				5					10					15

<210> 369

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<400> 369

Thr Glu Gln Glu Ile Gln Phe Gln Gln Ser Lys Asn Ser Lys Phe
 1 5 10 15

<210> 370
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 <212> PRT
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Ile Gln Phe Gln Gln Ser Lys Asn Ser Lys Phe Lys Asn Phe Arg
 1 5 10 15

<210> 371
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 <212> PRT
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 <400> 371

Gln Ser Lys Asn Ser Lys Phe Lys Asn Phe Arg Val Tyr Tyr Arg
 1 5 10 15

<210> 372
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 <212> PRT
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 <400> 372

Ser Lys Phe Lys Asn Phe Arg Val Tyr Tyr Arg Glu Gly Arg Asp
 1 5 10 15

<210> 373
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 <212> PRT
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 <400> 373

Asn Phe Arg Val Tyr Tyr Arg Glu Gly Arg Asp Gln Leu Trp Lys
 1 5 10 15

<210> 374

<211> 15
<212> PRT
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<220>
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<400> 374

Tyr Tyr Arg Glu Gly Arg Asp Gln Leu Trp Lys Gly Pro Gly Glu
1 5 10 15

<210> 375
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<212> PRT
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<220>
<223> SIV pol peptide 250

<400> 375

Gly Arg Asp Gln Leu Trp Lys Gly Pro Gly Glu Leu Leu Trp Lys
1 5 10 15

<210> 376
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<212> PRT
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<220>
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<400> 376

Leu Trp Lys Gly Pro Gly Glu Leu Leu Trp Lys Gly Glu Gly Ala
1 5 10 15

<210> 377
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<212> PRT
<213> Artificial

<220>
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<400> 377

Pro Gly Glu Leu Leu Trp Lys Gly Glu Gly Ala Val Ile Leu Lys
1 5 10 15

<210> 378
<211> 15
<212> PRT
<213> Artificial

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<223> SIV pol peptide 253

<400> 378

Leu Trp Lys Gly Glu Gly Ala Val Ile Leu Lys Val Gly Thr Asp
1 5 10 15

<210> 379

<211> 15

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<213> Artificial

<220>

<223> SIV pol peptide 254

<400> 379

Glu Gly Ala Val Ile Leu Lys Val Gly Thr Asp Ile Lys Val Val
1 5 10 15

<210> 380

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 255

<400> 380

Ile Leu Lys Val Gly Thr Asp Ile Lys Val Val Pro Arg Arg Lys
1 5 10 15

<210> 381

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 256

<400> 381

Gly Thr Asp Ile Lys Val Val Pro Arg Arg Lys Ala Lys Ile Ile
1 5 10 15

<210> 382

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV pol peptide 257

<400> 382

Lys Val Val Pro Arg Arg Lys Ala Lys Ile Ile Lys Asp Tyr Gly

Arg Arg Lys Ala Lys Ile Ile Lys Asp Tyr Gly Gly Gly Lys Glu
1 5 10 15

Lys Ile Ile Lys Asp Tyr Gly Gly Gly Lys Glu Val Asp Ser Ser
1 5 10 15

Asp Tyr Gly Gly Gly Lys Glu Val Asp Ser Ser Ser His Met Glu
1 5 10 15

Gly Lys Glu Val Asp Ser Ser Ser His Met Glu Asp Thr Gly Glu
1 5 10 15

89

<212> PRT
 <213> Artificial

<220>
 <223> SIV pol peptide 262

<400> 387

Asp Ser Ser Ser His Met Glu Asp Thr Gly Glu Ala Arg Glu Val
 1 5 10 15

<210> 388
 <211> 12
 <212> PRT
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<220>
 <223> SIV pol peptide 263

<400> 388

His Met Glu Asp Thr Gly Glu Ala Arg Glu Val Ala
 1 5 10

<210> 389
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV nef peptide 1

<400> 389

Met Gly Gly Ala Ile Ser Met Arg Arg Ser Arg Pro Ser Gly Asp
 1 5 10 15

<210> 390
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 <212> PRT
 <213> Artificial

<220>
 <223> SIV nef peptide 2

<400> 390

Ile Ser Met Arg Arg Ser Arg Pro Ser Gly Asp Leu Arg Gln Arg
 1 5 10 15

<210> 391
 <211> 15
 <212> PRT
 <213> Artificial

<220>
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<400> 391

Arg	Ser	Arg	Pro	Ser	Gly	Asp	Leu	Arg	Gln	Arg	Leu	Leu	Arg	Ala
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<210> 392

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 4

<400> 392

Ser	Gly	Asp	Leu	Arg	Gln	Arg	Leu	Leu	Arg	Ala	Arg	Gly	Glu	Thr
1				5					10					15

<210> 393

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 5

<400> 393

Arg	Gln	Arg	Leu	Leu	Arg	Ala	Arg	Gly	Glu	Thr	Tyr	Gly	Arg	Leu
1				5					10					15

<210> 394

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 6

<400> 394

Leu	Arg	Ala	Arg	Gly	Glu	Thr	Tyr	Gly	Arg	Leu	Leu	Gly	Glu	Val
1				5					10					15

<210> 395

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 7

<400> 395

Gly	Glu	Thr	Tyr	Gly	Arg	Leu	Leu	Gly	Glu	Val	Glu	Asp	Gly	Tyr
1				5					10					15

<210> 396
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 <212> PRT
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<220>
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<400> 396

Gly Arg Leu Leu Gly Glu Val Glu Asp Gly Tyr Ser Gln Ser Pro
 1 5 10 15

<210> 397
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SIV nef peptide 9

<400> 397

Gly Glu Val Glu Asp Gly Tyr Ser Gln Ser Pro Gly Gly Leu Asp
 1 5 10 15

<210> 398
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 <212> PRT
 <213> Artificial

<220>
 <223> SIV nef peptide 10

<400> 398

Asp Gly Tyr Ser Gln Ser Pro Gly Gly Leu Asp Lys Gly Leu Ser
 1 5 10 15

<210> 399
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 <212> PRT
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<220>
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<400> 399

Gln Ser Pro Gly Gly Leu Asp Lys Gly Leu Ser Ser Leu Ser Cys
 1 5 10 15

<210> 400
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<213> Artificial

<220>

<223> SIV nef peptide 12

<400> 400

Gly Leu Asp Lys Gly Leu Ser Ser Leu Ser Cys Glu Gly Gln Lys
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<210> 401

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 13

<400> 401

Gly Leu Ser Ser Leu Ser Cys Glu Gly Gln Lys Tyr Asn Gln Gly
1 5 10 15

<210> 402

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 14

<400> 402

Leu Ser Cys Glu Gly Gln Lys Tyr Asn Gln Gly Gln Tyr Met Asn
1 5 10 15

<210> 403

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 15

<400> 403

Gly Gln Lys Tyr Asn Gln Gly Gln Tyr Met Asn Thr Pro Trp Arg
1 5 10 15

<210> 404

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 16

<400> 404

Asn Gln Gly Gln Tyr Met Asn Thr Pro Trp Arg Asn Pro Ala Glu
 1 5 10 15

<210> 405

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 17

<400> 405

Tyr Met Asn Thr Pro Trp Arg Asn Pro Ala Glu Glu Arg Glu Lys
 1 5 10 15

<210> 406

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 18

<400> 406

Pro Trp Arg Asn Pro Ala Glu Glu Arg Glu Lys Leu Ala Tyr Arg
 1 5 10 15

<210> 407

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 19

<400> 407

Pro Ala Glu Glu Arg Glu Lys Leu Ala Tyr Arg Lys Gln Asn Met
 1 5 10 15

<210> 408

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SIV nef peptide 20

<400> 408

Arg Glu Lys Leu Ala Tyr Arg Lys Gln Asn Met Asp Asp Ile Asp
 1 5 10 15

<210> 409
 <211> 12
 <212> PRT
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Ala Tyr Arg Lys Gln Asn Met Asp Asp Ile Asp Glu
 1 5 10

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Met Arg Val Lys Gly Ile Arg Lys Asn Tyr Gln His Leu Trp Arg
 1 5 10 15

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<400> 411

Gly Ile Arg Lys Asn Tyr Gln His Leu Trp Arg Gly Gly Thr Leu
 1 5 10 15

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<220>
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<400> 412

Asn Tyr Gln His Leu Trp Arg Gly Gly Thr Leu Leu Leu Gly Met
 1 5 10 15

<210> 413
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<220>

<223> SHIV env peptide 4

<400> 413

Leu Trp Arg Gly Gly Thr Leu Leu Leu Gly Met Leu Met Ile Cys
1 5 10 15

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<211> 15

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<213> Artificial

<220>

<223> SHIV env peptide 5

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Gly Thr Leu Leu Leu Gly Met Leu Met Ile Cys Ser Ala Val Glu
1 5 10 15

<210> 415

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 6

<400> 415

Leu Gly Met Leu Met Ile Cys Ser Ala Val Glu Lys Leu Trp Val
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<211> 15

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<400> 416

Met Ile Cys Ser Ala Val Glu Lys Leu Trp Val Thr Val Tyr Tyr
1 5 10 15

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<400> 417

Ala Val Glu Lys Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Ala
 1 5 10 15

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Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Ala Trp Lys Glu Ala
 1 5 10 15

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Val Tyr Tyr Gly Val Pro Ala Trp Lys Glu Ala Thr Thr Thr Leu
 1 5 10 15

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<400> 420

Val Pro Ala Trp Lys Glu Ala Thr Thr Thr Leu Phe Cys Ala Ser
 1 5 10 15

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<400> 421

Lys Glu Ala Thr Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala
 1 5 10 15

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<400> 422

Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Asp Thr Glu
 1 5 10 15

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Cys Ala Ser Asp Ala Lys Ala Tyr Asp Thr Glu Val His Asn Val
 1 5 10 15

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<400> 424

Ala Lys Ala Tyr Asp Thr Glu Val His Asn Val Trp Ala Thr His
 1 5 10 15

<210> 425
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<223> SHIV env peptide 16

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Asp Thr Glu Val His Asn Val Trp Ala Thr His Ala Cys Val Pro
 1 5 10 15

<210> 426
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<223> SHIV env peptide 17

<400> 426

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<220>

<223> SHIV env peptide 18

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Ala	Thr	His	Ala	Cys	Val	Pro	Thr	Asp	Pro	Asn	Pro	Gln	Glu	Ile
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<223> SHIV env peptide 19

<400> 428

Cys	Val	Pro	Thr	Asp	Pro	Asn	Pro	Gln	Glu	Ile	Val	Leu	Glu	Asn
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<220>

<223> SHIV env peptide 20

<400> 429

Asp	Pro	Asn	Pro	Gln	Glu	Ile	Val	Leu	Glu	Asn	Val	Thr	Glu	Asn
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<210> 430

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<212> PRT

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<223> SHIV env peptide 21

<400> 430

Pro Gln Glu Ile Val Leu Glu Asn Val Thr Glu Asn Phe Asn Met
 1 5 10 15

<210> 431
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<220>
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<400> 431

Val Leu Glu Asn Val Thr Glu Asn Phe Asn Met Trp Lys Asn Asn
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<400> 432

Val Thr Glu Asn Phe Asn Met Trp Lys Asn Asn Met Val Glu Gln
 1 5 10 15

<210> 433
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<220>
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<400> 433

Phe Asn Met Trp Lys Asn Asn Met Val Glu Gln Met His Glu Asp
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<210> 434
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<220>
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<400> 434

Lys Asn Asn Met Val Glu Gln Met His Glu Asp Ile Ile Ser Leu
 1 5 10 15

<210> 435

<211> 15
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<220>
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<400> 435

Val Glu Gln Met His Glu Asp Ile Ile Ser Leu Trp Asp Gln Ser
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<210> 436
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<220>
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<400> 436

His Glu Asp Ile Ile Ser Leu Trp Asp Gln Ser Leu Glu Pro Cys
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<210> 437
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<220>
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<400> 437

Ile Ser Leu Trp Asp Gln Ser Leu Glu Pro Cys Val Lys Leu Thr
 1 5 10 15

<210> 438
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<220>
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<400> 438

Asp Gln Ser Leu Glu Pro Cys Val Lys Leu Thr Pro Leu Cys Val
 1 5 10 15

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<220>

<223> SHIV env peptide 30

<400> 439

Glu Pro Cys Val Lys Leu Thr Pro Leu Cys Val Thr Leu His Cys
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<210> 440

<211> 15

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<213> Artificial

<220>

<223> SHIV env peptide 31

<400> 440

Lys Leu Thr Pro Leu Cys Val Thr Leu His Cys Thr Asn Leu Glu
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<210> 441

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 32

<400> 441

Leu Cys Val Thr Leu His Cys Thr Asn Leu Glu Asn Ala Thr Asn
1 5 10 15

<210> 442

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 33

<400> 442

Leu His Cys Thr Asn Leu Glu Asn Ala Thr Asn Thr Thr Ser Ser
1 5 10 15

<210> 443

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 34

<400> 443

Asn Leu Glu Asn Ala Thr Asn Thr Thr Ser Ser Asn Trp Lys Glu

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1              5              10              15
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<220>
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<400>    444

Ala Thr Asn Thr Thr Ser Ser Asn Trp Lys Glu Met Asn Arg Gly
1           5           10           15
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<210> 445
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<213> Artificial

<220>
<223> SHIV env peptide 36

<400> 445
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Thr Ser Ser Asn Trp Lys Glu Met Asn Arg Gly Glu Ile Lys Asn
1 5 10 15

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<210> 446
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SHIV env peptide 37

<400> 446
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Trp Lys Glu Met Asn Arg Gly Glu Ile Lys Asn Cys Ser Phe Asn
1 5 10 15

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<210> 447
<211> 15
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<220>
<223> SHIV env peptide 38

<400> 447
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Asn Arg Gly Glu Ile Lys Asn Cys Ser Phe Asn Val Thr Thr Ser
1 5 10 15

<210>	448
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<212> PRT
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<220>
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<400> 448

Ile Lys Asn Cys Ser Phe Asn Val Thr Thr Ser Ile Gly Asn Lys
1 5 10 15

<210> 449
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<212> PRT
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<220>
<223> SHIV env peptide 40

<400> 449

Ser Phe Asn Val Thr Thr Ser Ile Gly Asn Lys Met Gln Lys Glu
1 5 10 15

<210> 450
<211> 15
<212> PRT
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<220>
<223> SHIV env peptide 41

<400> 450

Thr Thr Ser Ile Gly Asn Lys Met Gln Lys Glu Tyr Ala Leu Phe
1 5 10 15

<210> 451
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<212> PRT
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<220>
<223> SHIV env peptide 42

<400> 451

Gly Asn Lys Met Gln Lys Glu Tyr Ala Leu Phe Tyr Arg Leu Asp
1 5 10 15

<210> 452
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SHIV env peptide 43

<400> 452

Met Gln Lys Glu Tyr Ala Leu Phe Tyr Arg Leu Asp Val Val Pro
 1 5 10 15

<210> 453

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 44

<400> 453

Tyr Ala Leu Phe Tyr Arg Leu Asp Val Val Pro Ile Asp Asn Asp
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<210> 454

<211> 15

<212> PRT

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<220>

<223> SHIV env peptide 45

<400> 454

Tyr Arg Leu Asp Val Val Pro Ile Asp Asn Asp Asn Thr Ser Tyr
 1 5 10 15

<210> 455

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 46

<400> 455

Val Val Pro Ile Asp Asn Asp Asn Thr Ser Tyr Asn Leu Ile Asn
 1 5 10 15

<210> 456

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 47

<400> 456

Asp Asn Asp Asn Thr Ser Tyr Asn Leu Ile Asn Cys Asn Thr Ser
 1 5 10 15

<210> 457
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 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 48

<400> 457

Thr	Ser	Tyr	Asn	Leu	Ile	Asn	Cys	Asn	Thr	Ser	Val	Ile	Thr	Gln
1				5					10					15

<210> 458
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 <212> PRT
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<220>
 <223> SHIV env peptide 49

<400> 458

Leu	Ile	Asn	Cys	Asn	Thr	Ser	Val	Ile	Thr	Gln	Ala	Cys	Pro	Lys
1				5					10					15

<210> 459
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<220>
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<400> 459

Asn	Thr	Ser	Val	Ile	Thr	Gln	Ala	Cys	Pro	Lys	Val	Ser	Phe	Glu
1				5					10					15

<210> 460
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<400> 460

Ile	Thr	Gln	Ala	Cys	Pro	Lys	Val	Ser	Phe	Glu	Pro	Ile	Pro	Ile
1				5					10					15

<210> 461
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<213> Artificial

<220>

<223> SHIV env peptide 52

<400> 461

Cys Pro Lys Val Ser Phe Glu Pro Ile Pro Ile His Tyr Cys Ala
1 5 10 15

<210> 462

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 53

<400> 462

Ser Phe Glu Pro Ile Pro Ile His Tyr Cys Ala Pro Ala Gly Phe
1 5 10 15

<210> 463

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<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 54

<400> 463

Ile Pro Ile His Tyr Cys Ala Pro Ala Gly Phe Ala Ile Leu Lys
1 5 10 15

<210> 464

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 55

<400> 464

Tyr Cys Ala Pro Ala Gly Phe Ala Ile Leu Lys Cys Asn Asp Lys
1 5 10 15

<210> 465

<211> 15

<212> PRT

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<220>

<223> SHIV env peptide 56

<400> 465

Ala	Gly	Phe	Ala	Ile	Leu	Lys	Cys	Asn	Asp	Lys	Lys	Phe	Asn	Gly
1				5					10					15

<210> 466

<211> 15

<212> PRT

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<220>

<223> SHIV env peptide 57

<400> 466

Ile	Leu	Lys	Cys	Asn	Asp	Lys	Lys	Phe	Asn	Gly	Ser	Gly	Pro	Cys
1				5					10					15

<210> 467

<211> 15

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<220>

<223> SHIV env peptide 58

<400> 467

Asn	Asp	Lys	Lys	Phe	Asn	Gly	Ser	Gly	Pro	Cys	Ile	Asn	Val	Ser
1				5					10					15

<210> 468

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 59

<400> 468

Phe	Asn	Gly	Ser	Gly	Pro	Cys	Ile	Asn	Val	Ser	Thr	Val	Gln	Cys
1				5					10					15

<210> 469

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 60

<400> 469

Gly	Pro	Cys	Ile	Asn	Val	Ser	Thr	Val	Gln	Cys	Thr	His	Gly	Ile
1				5					10					15

<210> 470
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<212> PRT
<213> Artificial

<220>
<223> SHIV env peptide 61

<400> 470

Asn	Val	Ser	Thr	Val	Gln	Cys	Thr	His	Gly	Ile	Arg	Pro	Val	Val
1				5					10				15	

<210> 471
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<213> Artificial

<220>
<223> SHIV env peptide 62

<400> 471

Val	Gln	Cys	Thr	His	Gly	Ile	Arg	Pro	Val	Val	Ser	Thr	Gln	Leu
1				5					10				15	

<210> 472
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<212> PRT
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<220>
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<400> 472

His	Gly	Ile	Arg	Pro	Val	Val	Ser	Thr	Gln	Leu	Leu	Leu	Asn	Gly
1				5					10				15	

<210> 473
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SHIV env peptide 64

<400> 473

Pro	Val	Val	Ser	Thr	Gln	Leu	Leu	Leu	Asn	Gly	Ser	Leu	Ala	Glu
1				5					10				15	

<210> 474
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<212> PRT
<213> Artificial

<220>

<223> SHIV env peptide 65

<400> 474

Thr Gln Leu Leu Leu Asn Gly Ser Leu Ala Glu Glu Gly Val Val
1 5 10 15

<210> 475

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 66

<400> 475

Leu Asn Gly Ser Leu Ala Glu Glu Gly Val Val Ile Arg Ser Glu
1 5 10 15

<210> 476

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 67

<400> 476

Leu Ala Glu Glu Gly Val Val Ile Arg Ser Glu Asn Phe Thr Asp
1 5 10 15

<210> 477

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 68

<400> 477

Gly Val Val Ile Arg Ser Glu Asn Phe Thr Asp Asn Val Lys Thr
1 5 10 15

<210> 478

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 69

<400> 478

Arg Ser Glu Asn Phe Thr Asp Asn Val Lys Thr Ile Ile Val Gln
 1 5 10 15

<210> 479
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<220>
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<400> 479

Phe Thr Asp Asn Val Lys Thr Ile Ile Val Gln Leu Lys Glu Ser
 1 5 10 15

<210> 480
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 <212> PRT
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<220>
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<400> 480

Val Lys Thr Ile Ile Val Gln Leu Lys Glu Ser Val Glu Ile Asn
 1 5 10 15

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<220>
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<400> 481

Ile Val Gln Leu Lys Glu Ser Val Glu Ile Asn Cys Thr Arg Pro
 1 5 10 15

<210> 482
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<220>
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<400> 482

Lys Glu Ser Val Glu Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr
 1 5 10 15

<210> 483
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 <212> PRT
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<220>
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<400> 483

Glu Ile Asn Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys Ser Ile
 1 5 10 15

<210> 484
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<220>
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<400> 484

Thr Arg Pro Asn Asn Asn Thr Arg Lys Ser Ile Pro Ile Gly Pro
 1 5 10 15

<210> 485
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 <212> PRT
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<220>
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<400> 485

Asn Asn Thr Arg Lys Ser Ile Pro Ile Gly Pro Gly Lys Ala Phe
 1 5 10 15

<210> 486
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<220>
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<400> 486

Lys Ser Ile Pro Ile Gly Pro Gly Lys Ala Phe Tyr Ala Thr Gly
 1 5 10 15

<210> 487
 <211> 15
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<220>

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<400> 487

Ile Gly Pro Gly Lys Ala Phe Tyr Ala Thr Gly Asp Ile Ile Gly
1 5 10 15

<210> 488

<211> 15

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<220>

<223> SHIV env peptide 79

<400> 488

Lys Ala Phe Tyr Ala Thr Gly Asp Ile Ile Gly Asp Ile Arg Gln
1 5 10 15

<210> 489

<211> 15

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<220>

<223> SHIV env peptide 80

<400> 489

Ala Thr Gly Asp Ile Ile Gly Asp Ile Arg Gln Ala His Cys Asn
1 5 10 15

<210> 490

<211> 15

<212> PRT

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<220>

<223> SHIV env peptide 81

<400> 490

Ile Ile Gly Asp Ile Arg Gln Ala His Cys Asn Ile Ser Gly Glu
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<210> 491

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 82

<400> 491

Ile Arg Gln Ala His Cys Asn Ile Ser Gly Glu Lys Trp Asn Asn
 1 5 10 15

<210> 492

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 83

<400> 492

His Cys Asn Ile Ser Gly Glu Lys Trp Asn Asn Thr Leu Lys Gln
 1 5 10 15

<210> 493

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 84

<400> 493

Ser Gly Glu Lys Trp Asn Asn Thr Leu Lys Gln Ile Val Thr Lys
 1 5 10 15

<210> 494

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 85

<400> 494

Trp Asn Asn Thr Leu Lys Gln Ile Val Thr Lys Leu Gln Ala Gln
 1 5 10 15

<210> 495

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 86

<400> 495

Leu Lys Gln Ile Val Thr Lys Leu Gln Ala Gln Phe Glu Asn Lys
 1 5 10 15

<210> 496

<211> 15
 <212> PRT
 <213> Artificial

<220>
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<400> 496

Val	Thr	Lys	Leu	Gln	Ala	Gln	Phe	Glu	Asn	Lys	Thr	Ile	Val	Phe
1				5					10					15

<210> 497
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 88

<400> 497

Leu	Gln	Ala	Gln	Phe	Glu	Asn	Lys	Thr	Ile	Val	Phe	Lys	Gln	Ser
1				5					10					15

<210> 498
 <211> 15
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<220>
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<400> 498

Phe	Glu	Asn	Lys	Thr	Ile	Val	Phe	Lys	Gln	Ser	Ser	Gly	Gly	Asp
1				5					10					15

<210> 499
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<220>
 <223> SHIV env peptide 90

<400> 499

Thr	Ile	Val	Phe	Lys	Gln	Ser	Ser	Gly	Gly	Asp	Pro	Glu	Ile	Val
1				5					10					15

<210> 500
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 <212> PRT
 <213> Artificial

<220>

<223> SHIV env peptide 91

<400> 500

Lys	Gln	Ser	Ser	Gly	Gly	Asp	Pro	Glu	Ile	Val	Met	His	Ser	Phe
1				5					10					15

<210> 501

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 92

<400> 501

Gly	Gly	Asp	Pro	Glu	Ile	Val	Met	His	Ser	Phe	Asn	Cys	Gly	Gly
1				5					10					15

<210> 502

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 93

<400> 502

Glu	Ile	Val	Met	His	Ser	Phe	Asn	Cys	Gly	Gly	Glu	Phe	Phe	Tyr
1				5					10					15

<210> 503

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 94

<400> 503

His	Ser	Phe	Asn	Cys	Gly	Gly	Glu	Phe	Phe	Tyr	Cys	Asn	Ser	Thr
1				5					10					15

<210> 504

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<220>

<223> SHIV env peptide 95

<400> 504

Cys	Gly	Gly	Glu	Phe	Phe	Tyr	Cys	Asn	Ser	Thr	Gln	Leu	Phe	Asn
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1

5

10

15

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<220>
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<400> 505

Phe Phe Tyr Cys Asn Ser Thr Gln Leu Phe Asn Ser Thr Trp Asn
 1 5 10 15

<210> 506
 <211> 15
 <212> PRT
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<220>
 <223> SHIV env peptide 97

<400> 506

Asn Ser Thr Gln Leu Phe Asn Ser Thr Trp Asn Asn Thr Ile Gly
 1 5 10 15

<210> 507
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 98

<400> 507

Leu Phe Asn Ser Thr Trp Asn Asn Thr Ile Gly Pro Asn Asn Thr
 1 5 10 15

<210> 508
 <211> 15
 <212> PRT
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<220>
 <223> SHIV env peptide 99

<400> 508

Thr Trp Asn Asn Thr Ile Gly Pro Asn Asn Thr Asn Gly Thr Ile
 1 5 10 15

<210> 509
 <211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 100

<400> 509

Thr	Ile	Gly	Pro	Asn	Asn	Thr	Asn	Gly	Thr	Ile	Thr	Leu	Pro	Cys
1				5					10					15

<210> 510

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 101

<400> 510

Asn	Asn	Thr	Asn	Gly	Thr	Ile	Thr	Leu	Pro	Cys	Arg	Ile	Lys	Gln
1			5						10					15

<210> 511

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 102

<400> 511

Gly	Thr	Ile	Thr	Leu	Pro	Cys	Arg	Ile	Lys	Gln	Ile	Ile	Asn	Arg
1				5					10					15

<210> 512

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 103

<400> 512

Leu	Pro	Cys	Arg	Ile	Lys	Gln	Ile	Ile	Asn	Arg	Trp	Gln	Glu	Val
1				5					10					15

<210> 513

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 104

<400> 513

Ile Lys Gln Ile Ile Asn Arg Trp Gln Glu Val Gly Lys Ala Met
 1 5 10 15

<210> 514

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 105

<400> 514

Ile Asn Arg Trp Gln Glu Val Gly Lys Ala Met Tyr Ala Pro Pro
 1 5 10 15

<210> 515

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 106

<400> 515

Trp Gln Glu Val Gly Lys Ala Met Tyr Ala Pro Pro Ile Arg Gly
 1 5 10 15

<210> 516

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 107

<400> 516

Gly Lys Ala Met Tyr Ala Pro Pro Ile Arg Gly Gln Ile Arg Cys
 1 5 10 15

<210> 517

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 108

<400> 517

Tyr Ala Pro Pro Ile Arg Gly Gln Ile Arg Cys Ser Ser Asn Ile
 1 5 10 15

<210> 518
 <211> 15
 <212> PRT
 <213> Artificial

<220>
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<400> 518

Ile Arg Gly Gln Ile Arg Cys Ser Ser Asn Ile Thr Gly Leu Leu
 1 5 10 15

<210> 519
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 110

<400> 519

Ile Arg Cys Ser Ser Asn Ile Thr Gly Leu Leu Leu Thr Arg Asp
 1 5 10 15

<210> 520
 <211> 15
 <212> PRT
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<220>
 <223> SHIV env peptide 111

<400> 520

Ser Asn Ile Thr Gly Leu Leu Leu Thr Arg Asp Gly Gly Arg Glu
 1 5 10 15

<210> 521
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 112

<400> 521

Gly Leu Leu Leu Thr Arg Asp Gly Gly Arg Glu Val Gly Asn Thr
 1 5 10 15

<210> 522
 <211> 15
 <212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 113

<400> 522

Thr	Arg	Asp	Gly	Gly	Arg	Glu	Val	Gly	Asn	Thr	Thr	Glu	Ile	Phe
1				5					10					15

<210> 523

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 114

<400> 523

Gly	Arg	Glu	Val	Gly	Asn	Thr	Thr	Glu	Ile	Phe	Arg	Pro	Gly	Gly
1				5					10					15

<210> 524

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 115

<400> 524

Gly	Asn	Thr	Thr	Glu	Ile	Phe	Arg	Pro	Gly	Gly	Gly	Asp	Met	Arg
1				5					10					15

<210> 525

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 116

<400> 525

Glu	Ile	Phe	Arg	Pro	Gly	Gly	Gly	Asp	Met	Arg	Asp	Asn	Trp	Arg
1				5					10					15

<210> 526

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 117

<400> 526

Pro Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr
 1 5 10 15

<210> 527

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 118

<400> 527

Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys Tyr Lys Val
 1 5 10 15

<210> 528

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 119

<400> 528

Asn Trp Arg Ser Glu Leu Tyr Lys Tyr Lys Val Val Lys Ile Glu
 1 5 10 15

<210> 529

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 120

<400> 529

Glu Leu Tyr Lys Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val
 1 5 10 15

<210> 530

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 121

<400> 530

Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys
 1 5 10 15

<210> 531
 <211> 15
 <212> PRT
 <213> Artificial

<220>
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<400> 531

Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys Ala Lys Arg Arg
 1 5 10 15

<210> 532
 <211> 15
 <212> PRT
 <213> Artificial

<220>
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<400> 532

Leu Gly Val Ala Pro Thr Lys Ala Lys Arg Arg Val Val Gln Arg
 1 5 10 15

<210> 533
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 124

<400> 533

Pro Thr Lys Ala Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala
 1 5 10 15

<210> 534
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 <212> PRT
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<220>
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<400> 534

Lys Arg Arg Val Val Gln Arg Glu Lys Arg Ala Val Thr Leu Gly
 1 5 10 15

<210> 535
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 <213> Artificial

<220>

<223> SHIV env peptide 126

<400> 535

Val Gln Arg Glu Lys Arg Ala Val Thr Leu Gly Ala Val Phe Leu
1 5 10 15

<210> 536

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 127

<400> 536

Lys Arg Ala Val Thr Leu Gly Ala Val Phe Leu Gly Phe Leu Gly
1 5 10 15

<210> 537

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 128

<400> 537

Thr Leu Gly Ala Val Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser
1 5 10 15

<210> 538

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 129

<400> 538

Val Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser Thr Met Gly Ala
1 5 10 15

<210> 539

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 130

<400> 539

Phe Leu Gly Ala Ala Gly Ser Thr Met Gly Ala Ala Ser Leu Thr
 1 5 10 15

<210> 540
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 131

<400> 540

Ala Gly Ser Thr Met Gly Ala Ala Ser Leu Thr Leu Thr Val Gln
 1 5 10 15

<210> 541
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 132

<400> 541

Met Gly Ala Ala Ser Leu Thr Leu Thr Val Gln Ala Arg Gln Leu
 1 5 10 15

<210> 542
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 133

<400> 542

Ser Leu Thr Leu Thr Val Gln Ala Arg Gln Leu Leu Ser Gly Ile
 1 5 10 15

<210> 543
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 134

<400> 543

Thr Val Gln Ala Arg Gln Leu Leu Ser Gly Ile Val Gln Gln Gln
 1 5 10 15

<210> 544
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 135

<400> 544

Arg Gln Leu Leu Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu
 1 5 10 15

<210> 545
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 136

<400> 545

Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu
 1 5 10 15

<210> 546
 <211> 15
 <212> PRT
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<220>
 <223> SHIV env peptide 137

<400> 546

Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln
 1 5 10 15

<210> 547
 <211> 15
 <212> PRT
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<220>
 <223> SHIV env peptide 138

<400> 547

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln Arg Leu Leu Gln
 1 5 10 15

<210> 548
 <211> 15
 <212> PRT
 <213> Artificial

<220>

<223> SHIV env peptide 139

<400> 548

Arg Ala Ile Glu Ala Gln Gln Arg Leu Leu Gln Leu Thr Val Trp
1 5 10 15

<210> 549

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 140

<400> 549

Ala Gln Gln Arg Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln
1 5 10 15

<210> 550

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 141

<400> 550

Leu Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg
1 5 10 15

<210> 551

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 142

<400> 551

Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Val Leu Ala Val
1 5 10 15

<210> 552

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 143

<400> 552

Ile Lys Gln Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu
 1 5 10 15

<210> 553
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 144

<400> 553

Leu Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln
 1 5 10 15

<210> 554
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 145

<400> 554

Val Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln Gln Leu Leu Gly
 1 5 10 15

<210> 555
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 146

<400> 555

Glu Arg Tyr Leu Lys Asp Gln Gln Leu Leu Gly Ile Trp Gly Cys
 1 5 10 15

<210> 556
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 147

<400> 556

Lys Asp Gln Gln Leu Leu Gly Ile Trp Gly Cys Ser Gly Lys Leu
 1 5 10 15

<210> 557

<211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 148

<400> 557

Leu Leu Gly Ile Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr Thr
 1 5 10 15

<210> 558
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 149

<400> 558

Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr Thr Ala Val Pro Trp
 1 5 10 15

<210> 559
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 150

<400> 559

Gly Lys Leu Ile Cys Thr Thr Ala Val Pro Trp Asn Ala Ser Trp
 1 5 10 15

<210> 560
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 151

<400> 560

Cys Thr Thr Ala Val Pro Trp Asn Ala Ser Trp Ser Asn Lys Ser
 1 5 10 15

<210> 561
 <211> 15
 <212> PRT
 <213> Artificial

<220>

<223> SHIV env peptide 152

<400> 561

Val	Pro	Trp	Asn	Ala	Ser	Trp	Ser	Asn	Lys	Ser	Leu	Asp	Gln	Ile
1				5					10					15

<210> 562

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 153

<400> 562

Ala	Ser	Trp	Ser	Asn	Lys	Ser	Leu	Asp	Gln	Ile	Trp	Asn	Asn	Met
1				5					10					15

<210> 563

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 154

<400> 563

Asn	Lys	Ser	Leu	Asp	Gln	Ile	Trp	Asn	Asn	Met	Thr	Trp	Met	Glu
1				5					10					15

<210> 564

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 155

<400> 564

Asp	Gln	Ile	Trp	Asn	Asn	Met	Thr	Trp	Met	Glu	Trp	Glu	Arg	Glu
1				5					10					15

<210> 565

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 156

<400> 565

Asn Asn Met Thr Trp Met Glu Trp Glu Arg Glu Ile Gly Asn Tyr

1 5 10 15

<210> 566
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 157

<400> 566

Trp Met Glu Trp Glu Arg Glu Ile Gly Asn Tyr Thr Asn Leu Ile
 1 5 10 15

<210> 567
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 158

<400> 567

Glu Arg Glu Ile Gly Asn Tyr Thr Asn Leu Ile Tyr Thr Leu Ile
 1 5 10 15

<210> 568
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 159

<400> 568

Gly Asn Tyr Thr Asn Leu Ile Tyr Thr Leu Ile Glu Glu Ser Gln
 1 5 10 15

<210> 569
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 160

<400> 569

Asn Leu Ile Tyr Thr Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu
 1 5 10 15

<210> 570
 <211> 15

<212> PRT
<213> Artificial

<220>
<223> SHIV. env peptide 161

<400> 570

Thr Leu Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln
1 5 10 15

<210> 571
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SHIV env peptide 162

<400> 571

Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu
1 5 10 15

<210> 572
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SHIV env peptide 163

<400> 572

Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys
1 5 10 15

<210> 573
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SHIV env peptide 164

<400> 573

Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
1 5 10 15

<210> 574
<211> 15
<212> PRT
<213> Artificial

<220>
<223> SHIV env peptide 165

<400> 574

Glu	Leu	Leu	Glu	Leu	Asp	Lys	Trp	Ala	Ser	Leu	Trp	Asn	Trp	Leu
1				5					10					15

<210> 575

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 166

<400> 575

Leu	Asp	Lys	Trp	Ala	Ser	Leu	Trp	Asn	Trp	Leu	Asp	Ile	Ser	Lys
1				5				10						15

<210> 576

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 167

<400> 576

Ala	Ser	Leu	Trp	Asn	Trp	Leu	Asp	Ile	Ser	Lys	Trp	Leu	Trp	Tyr
1				5					10					15

<210> 577

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 168

<400> 577

Asn	Trp	Leu	Asp	Ile	Ser	Lys	Trp	Leu	Trp	Tyr	Ile	Lys	Ile	Phe
1				5				10						15

<210> 578

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 169

<400> 578

Ile	Ser	Lys	Trp	Leu	Trp	Tyr	Ile	Lys	Ile	Phe	Ile	Met	Ile	Val
1				5				10						15

<210> 579
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 170

<400> 579

Leu Trp Tyr Ile Lys Ile Phe Ile Met Ile Val Gly Gly Leu Val
 1 5 10 15

<210> 580
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 171

<400> 580

Lys Ile Phe Ile Met Ile Val Gly Gly Leu Val Gly Leu Arg Ile
 1 5 10 15

<210> 581
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 172

<400> 581

Met Ile Val Gly Gly Leu Val Gly Leu Arg Ile Val Phe Thr Val
 1 5 10 15

<210> 582
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 173

<400> 582

Gly Leu Val Gly Leu Arg Ile Val Phe Thr Val Leu Ser Ile Val
 1 5 10 15

<210> 583
 <211> 15
 <212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 174

<400> 583

Leu Arg Ile Val Phe Thr Val Leu Ser Ile Val Asn Arg Val Arg
1 5 10 15

<210> 584

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 175

<400> 584

Phe Thr Val Leu Ser Ile Val Asn Arg Val Arg Gln Gly Tyr Ser
1 5 10 15

<210> 585

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 176

<400> 585

Ser Ile Val Asn Arg Val Arg Gln Gly Tyr Ser Pro Leu Ser Phe
1 5 10 15

<210> 586

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 177

<400> 586

Arg Val Arg Gln Gly Tyr Ser Pro Leu Ser Phe Gln Thr Arg Phe
1 5 10 15

<210> 587

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 178

<400> 587

Gly Tyr Ser Pro Leu Ser Phe Gln Thr Arg Phe Pro Ala Pro Arg
 1 5 10 15

<210> 588

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 179

<400> 588

Leu Ser Phe Gln Thr Arg Phe Pro Ala Pro Arg Gly Leu Asp Arg
 1 5 10 15

<210> 589

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 180

<400> 589

Thr Arg Phe Pro Ala Pro Arg Gly Leu Asp Arg Pro Glu Gly Ile
 1 5 10 15

<210> 590

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 181

<400> 590

Ala Pro Arg Gly Leu Asp Arg Pro Glu Gly Ile Glu Glu Glu Gly
 1 5 10 15

<210> 591

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 182

<400> 591

Leu Asp Arg Pro Glu Gly Ile Glu Glu Glu Gly Gly Glu Arg Asp
 1 5 10 15

<210> 592
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 183

<400> 592

Glu Gly Ile Glu Glu Glu Gly Gly Glu Arg Asp Arg Asp Arg Ser
 1 5 10 15

<210> 593
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 184

<400> 593

Glu Glu Gly Gly Glu Arg Asp Arg Asp Arg Ser Arg Pro Leu Val
 1 5 10 15

<210> 594
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 185

<400> 594

Glu Arg Asp Arg Asp Arg Ser Arg Pro Leu Val His Gly Leu Leu
 1 5 10 15

<210> 595
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 186

<400> 595

Asp Arg Ser Arg Pro Leu Val His Gly Leu Leu Ala Leu Ile Trp
 1 5 10 15

<210> 596
 <211> 15
 <212> PRT
 <213> Artificial

<220>

<223> SHIV env peptide 187

<400> 596

Pro Leu Val His Gly Leu Leu Ala Leu Ile Trp Asp Asp Leu Arg
1 5 10 15

<210> 597

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 188

<400> 597

Gly Leu Leu Ala Leu Ile Trp Asp Asp Leu Arg Ser Leu Cys Leu
1 5 10 15

<210> 598

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 189

<400> 598

Leu Ile Trp Asp Asp Leu Arg Ser Leu Cys Leu Phe Ser Tyr His
1 5 10 15

<210> 599

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 190

<400> 599

Asp Leu Arg Ser Leu Cys Leu Phe Ser Tyr His Arg Leu Arg Asp
1 5 10 15

<210> 600

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 191

<400> 600

Leu Cys Leu Phe Ser Tyr His Arg Leu Arg Asp Leu Ile Leu Ile
 1 5 10 15

<210> 601
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 192

<400> 601

Ser Tyr His Arg Leu Arg Asp Leu Ile Leu Ile Ala Ala Arg Ile
 1 5 10 15

<210> 602
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 193

<400> 602

Leu Arg Asp Leu Ile Leu Ile Ala Ala Arg Ile Val Glu Leu Leu
 1 5 10 15

<210> 603
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 194

<400> 603

Ile Leu Ile Ala Ala Arg Ile Val Glu Leu Leu Gly Arg Arg Gly
 1 5 10 15

<210> 604
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 195

<400> 604

Ala Arg Ile Val Glu Leu Leu Gly Arg Arg Gly Trp Glu Ala Leu
 1 5 10 15

<210> 605
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 196

<400> 605

Glu Leu Leu Gly Arg Arg Gly Trp Glu Ala Leu Lys Tyr Trp Gly
 1 5 10 15

<210> 606
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 197

<400> 606

Arg Arg Gly Trp Glu Ala Leu Lys Tyr Trp Gly Asn Leu Leu Gln
 1 5 10 15

<210> 607
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 198

<400> 607

Glu Ala Leu Lys Tyr Trp Gly Asn Leu Leu Gln Tyr Trp Ile Gln
 1 5 10 15

<210> 608
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> SHIV env peptide 199

<400> 608

Tyr Trp Gly Asn Leu Leu Gln Tyr Trp Ile Gln Glu Leu Lys Asn
 1 5 10 15

<210> 609
 <211> 15
 <212> PRT
 <213> Artificial

<220>

<223> SHIV env peptide 200

<400> 609

Leu	Leu	Gln	Tyr	Trp	Ile	Gln	Glu	Leu	Lys	Asn	Ser	Ala	Val	Ser
1				5					10					15

<210> 610

<211> 15

<212> PRT

<213> Artificial

<220>

<223> SHIV env peptide 201

<400> 610

Trp	Ile	Gln	Glu	Leu	Lys	Asn	Ser	Ala	Val	Ser	Leu	Phe	Gly	Ala
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<220>

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<400> 612

Ala	Val	Ser	Leu	Phe	Gly	Ala	Ile	Ala	Ile	Ala	Val	Ala	Glu	Gly
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Phe Gly Ala Ile Ala Ile Ala Val Ala Glu Gly Thr Asp Arg Ile
 1 5 10 15

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<400> 614

Ala Ile Ala Val Ala Glu Gly Thr Asp Arg Ile Ile Glu Val Ala
 1 5 10 15

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<400> 615

Ala Glu Gly Thr Asp Arg Ile Ile Glu Val Ala Gln Arg Ile Gly
 1 5 10 15

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<400> 616

Asp Arg Ile Ile Glu Val Ala Gln Arg Ile Gly Arg Ala Phe Leu
 1 5 10 15

<210> 617
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<400> 617

Glu Val Ala Gln Arg Ile Gly Arg Ala Phe Leu His Ile Pro Arg
 1 5 10 15

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Arg Ile Gly Arg Ala Phe Leu His Ile Pro Arg Arg Ile Arg Gln
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Ala Phe Leu His Ile Pro Arg Arg Ile Arg Gln Gly Leu Glu Arg
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<400> 620

Ile Pro Arg Arg Ile Arg Gln Gly Leu Glu Arg Thr Leu Leu
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<220>
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 1 5 10 15

<210> 622
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<220>

<223> HIV-1 gag peptide 2

<400> 622

Ala Ser Val Leu Ser Gly Gly Glu Leu Asp Arg Trp Glu Lys Ile
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<210> 623

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<220>

<223> HIV-1 gag peptide 3

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Ser Gly Gly Glu Leu Asp Arg Trp Glu Lys Ile Arg Leu Arg Pro
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<220>

<223> HIV-1 gag peptide 4

<400> 624

Leu Asp Arg Trp Glu Lys Ile Arg Leu Arg Pro Gly Gly Lys Lys
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<220>

<223> HIV-1 gag peptide 5

<400> 625

Glu Lys Ile Arg Leu Arg Pro Gly Gly Lys Lys Lys Tyr Lys Leu
1 5 10 15

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<220>

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Leu Arg Pro Gly Gly Lys Lys Lys Tyr Lys Leu Lys His Ile Val

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<212> PRT
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 1 5 10 15

<210> 632
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<220>
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<400> 632

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<220>
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Pro Gly Leu Leu Glu Thr Ser Glu Gly Cys Arg Gln Ile Leu Gly
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<220>
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<220>

<223> HIV-1 gag peptide 16

<400> 636

Ile Leu Gly Gln Leu Gln Pro Ser Leu Gln Thr Gly Ser Glu Glu
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<220>

<223> HIV-1 gag peptide 17

<400> 637

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1 5 10 15

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<211> 15

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<220>

<223> HIV-1 gag peptide 18

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<220>

<223> HIV-1 gag peptide 19

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Ser Glu Glu Leu Arg Ser Leu Tyr Asn Thr Val Ala Thr Leu Tyr
1 5 10 15

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<220>
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<400> 640

Arg Ser Leu Tyr Asn Thr Val Ala Thr Leu Tyr Cys Val His Gln
1 5 10 15

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<220>
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Asn Thr Val Ala Thr Leu Tyr Cys Val His Gln Arg Ile Glu Val
1 5 10 15

<210> 642
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<220>
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<400> 642

Thr Leu Tyr Cys Val His Gln Arg Ile Glu Val Lys Asp Thr Lys
1 5 10 15

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<220>
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Val His Gln Arg Ile Glu Val Lys Asp Thr Lys Glu Ala Leu Glu
1 5 10 15

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<220>

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<400> 644

Ile Glu Val Lys Asp Thr Lys Glu Ala Leu Glu Lys Ile Glu Glu
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<220>

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Asp Thr Lys Glu Ala Leu Glu Lys Ile Glu Glu Glu Gln Asn Lys
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Ala Leu Glu Lys Ile Glu Glu Glu Gln Asn Lys Ser Lys Lys Lys
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<220>

<223> HIV-1 gag peptide 27

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Gln Asn Lys Ser Lys Lys Lys Ala Gln Gln Ala Ala Ala Asp Thr
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<400> 649

Lys Lys Lys Ala Gln Gln Ala Ala Ala Asp Thr Gly Asn Ser Ser
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<400> 650

Gln Gln Ala Ala Ala Asp Thr Gly Asn Ser Ser Gln Val Ser Gln
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<211> 15

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<220>

<223> HIV-1 gag peptide 31

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Ala Asp Thr Gly Asn Ser Ser Gln Val Ser Gln Asn Tyr Pro Ile
 1 5 10 15

<210> 652

<211> 15

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<220>

<223> HIV-1 gag peptide 32

<400> 652

Asn Ser Ser Gln Val Ser Gln Asn Tyr Pro Ile Val Gln Asn Leu
 1 5 10 15

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<220>
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<400> 653

Val	Ser	Gln	Asn	Tyr	Pro	Ile	Val	Gln	Asn	Leu	Gln	Gly	Gln	Met
1				5					10					15

<210> 654
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<220>
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<400> 654

Tyr	Pro	Ile	Val	Gln	Asn	Leu	Gln	Gly	Gln	Met	Val	His	Gln	Ala
1				5					10					15

<210> 655
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<400> 655

Gln	Asn	Leu	Gln	Gly	Gln	Met	Val	His	Gln	Ala	Ile	Ser	Pro	Arg
1			5						10					15

<210> 656
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<220>
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<400> 656

Gly	Gln	Met	Val	His	Gln	Ala	Ile	Ser	Pro	Arg	Thr	Leu	Asn	Ala
1				5					10					15

<210> 657
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<223> HIV-1 gag peptide 37

<400> 657

His	Gln	Ala	Ile	Ser	Pro	Arg	Thr	Leu	Asn	Ala	Trp	Val	Lys	Val
1				5					10					15

<210> 658

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<400> 658

Ser	Pro	Arg	Thr	Leu	Asn	Ala	Trp	Val	Lys	Val	Val	Glu	Glu	Lys
1				5					10					15

<210> 659

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<400> 659

Leu	Asn	Ala	Trp	Val	Lys	Val	Val	Glu	Glu	Lys	Ala	Phe	Ser	Pro
1				5					10					15

<210> 660

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<400> 660

Val	Lys	Val	Val	Glu	Glu	Lys	Ala	Phe	Ser	Pro	Glu	Val	Ile	Pro
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<210> 661

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<220>

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<400> 661

Glu Glu Lys Ala Phe Ser Pro Glu Val Ile Pro Met Phe Ser Ala
 1 5 10 15

<210> 662
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 <212> PRT
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<220>
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<400> 662

Phe Ser Pro Glu Val Ile Pro Met Phe Ser Ala Leu Ser Glu Gly
 1 5 10 15

<210> 663
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<220>
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<400> 663

Val Ile Pro Met Phe Ser Ala Leu Ser Glu Gly Ala Thr Pro Gln
 1 5 10 15

<210> 664
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<220>
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<400> 664

Phe Ser Ala Leu Ser Glu Gly Ala Thr Pro Gln Asp Leu Asn Thr
 1 5 10 15

<210> 665
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<220>
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<400> 665

Ser Glu Gly Ala Thr Pro Gln Asp Leu Asn Thr Met Leu Asn Thr
 1 5 10 15

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<220>
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<400> 666

Thr	Pro	Gln	Asp	Leu	Asn	Thr	Met	Leu	Asn	Thr	Val	Gly	Gly	His
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<210> 667
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<400> 667

Leu	Asn	Thr	Met	Leu	Asn	Thr	Val	Gly	Gly	His	Gln	Ala	Ala	Met
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<220>
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<400> 668

Leu	Asn	Thr	Val	Gly	Gly	His	Gln	Ala	Ala	Met	Gln	Met	Leu	Lys
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<220>
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<400> 669

Gly	Gly	His	Gln	Ala	Ala	Met	Gln	Met	Leu	Lys	Glu	Thr	Ile	Asn
1				5					10					15

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<400> 670

Ala	Ala	Met	Gln	Met	Leu	Lys	Glu	Thr	Ile	Asn	Glu	Glu	Ala	Ala
1				5					10					15

<210> 671

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<220>

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<400> 671

Gln	Met	Leu	Lys	Glu	Thr	Ile	Asn	Glu	Glu	Ala	Ala	Glu	Trp	Asp
1				5					10					15

<210> 672

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<220>

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<400> 672

Glu	Thr	Ile	Asn	Glu	Glu	Ala	Ala	Glu	Trp	Asp	Arg	Leu	His	Pro
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<220>

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<400> 673

Glu	Glu	Ala	Ala	Glu	Trp	Asp	Arg	Leu	His	Pro	Val	His	Ala	Gly
1				5					10					15

<210> 674

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<400> 674

Glu Trp Asp Arg Leu His Pro Val His Ala Gly Pro Ile Ala Pro
 1 5 10 15

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<220>
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<400> 675

Leu His Pro Val His Ala Gly Pro Ile Ala Pro Gly Gln Met Arg
 1 5 10 15

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<220>
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<400> 676

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 1 5 10 15

<210> 677
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<220>
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 1 5 10 15

<210> 678
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<220>
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<400> 678

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 1 5 10 15

<210> 679

<211> 15
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<400> 679

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 1 5 10 15

<210> 680
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<400> 680

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 1 5 10 15

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<400> 681

Thr Thr Ser Thr Leu Gln Glu Gln Ile Gly Trp Met Thr Asn Asn
 1 5 10 15

<210> 682
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<220>
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<400> 682

Leu Gln Glu Gln Ile Gly Trp Met Thr Asn Asn Pro Pro Ile Pro
 1 5 10 15

<210> 683
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<220>

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<400> 683

Ile Gly Trp Met Thr Asn Asn Pro Pro Ile Pro Val Gly Glu Ile
1 5 10 15

<210> 684

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<220>

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<400> 684

Thr Asn Asn Pro Pro Ile Pro Val Gly Glu Ile Tyr Lys Arg Trp
1 5 10 15

<210> 685

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<220>

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Pro Ile Pro Val Gly Glu Ile Tyr Lys Arg Trp Ile Ile Leu Gly
1 5 10 15

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Gly Glu Ile Tyr Lys Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile
1 5 10 15

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<400> 687

Lys Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile Val Arg Met Tyr

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 1 5 10 15

<210> 689
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 1 5 10 15

<210> 690
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 <400> 690

Arg Met Tyr Ser Pro Thr Ser Ile Leu Asp Ile Arg Gln Gly Pro
 1 5 10 15

<210> 691
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 <400> 691

Pro Thr Ser Ile Leu Asp Ile Arg Gln Gly Pro Lys Glu Pro Phe
 1 5 10 15

<210> 692
 <211> 15

<212> PRT
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<220>
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<400> 692

Leu Asp Ile Arg Gln Gly Pro Lys Glu Pro Phe Arg Asp Tyr Val
 1 5 10 15

<210> 693
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<220>
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<400> 693

Gln Gly Pro Lys Glu Pro Phe Arg Asp Tyr Val Asp Arg Phe Tyr
 1 5 10 15

<210> 694
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<220>
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<400> 694

Glu Pro Phe Arg Asp Tyr Val Asp Arg Phe Tyr Lys Thr Leu Arg
 1 5 10 15

<210> 695
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<220>
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<400> 695

Asp Tyr Val Asp Arg Phe Tyr Lys Thr Leu Arg Ala Glu Gln Ala
 1 5 10 15

<210> 696
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<400> 696

Arg Phe Tyr Lys Thr Leu Arg Ala Glu Gln Ala Ser Gln Glu Val
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<210> 697

<211> 15

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<400> 697.

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 1 5 10 15

<210> 698

<211> 15

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<220>

<223> HIV-1 gag peptide 78

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<210> 699

<211> 15

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<220>

<223> HIV-1 gag peptide 79

<400> 699

Gln Glu Val Lys Asn Trp Met Thr Glu Thr Leu Leu Val Gln Asn
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<210> 700

<211> 15

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<223> HIV-1 gag peptide 80

<400> 700

Asn Trp Met Thr Glu Thr Leu Leu Val Gln Asn Ala Asn Pro Asp
 1 5 10 15

<210> 701
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<220>
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Glu Thr Leu Leu Val Gln Asn Ala Asn Pro Asp Cys Lys Thr Ile
 1 5 10 15

<210> 702
 <211> 15
 <212> PRT
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<220>
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<400> 702

Val Gln Asn Ala Asn Pro Asp Cys Lys Thr Ile Leu Lys Ala Leu
 1 5 10 15

<210> 703
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 <212> PRT
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<220>
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Asn Pro Asp Cys Lys Thr Ile Leu Lys Ala Leu Gly Pro Ala Ala
 1 5 10 15

<210> 704
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<220>
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<400> 704

Lys Thr Ile Leu Lys Ala Leu Gly Pro Ala Ala Thr Leu Glu Glu
 1 5 10 15

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<220>

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Lys Ala Leu Gly Pro Ala Ala Thr Leu Glu Glu Met Met Thr Ala
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<210> 706

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<220>

<223> HIV-1 gag peptide 86

<400> 706

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1 5 10 15

<210> 707

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<223> HIV-1 gag peptide 87

<400> 707

Leu Glu Glu Met Met Thr Ala Cys Gln Gly Val Gly Gly Pro Gly
1 5 10 15

<210> 708

<211> 15

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<400> 708

Met Thr Ala Cys Gln Gly Val Gly Gly Pro Gly His Lys Ala Arg
1 5 10 15

<210> 709

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Gln Gly Val Gly Gly Pro Gly His Lys Ala Arg Val Leu Ala Glu
 1 5 10 15

<210> 710

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<223> HIV-1 gag peptide 90

<400> 710

Gly Pro Gly His Lys Ala Arg Val Leu Ala Glu Ala Met Ser Gln
 1 5 10 15

<210> 711

<211> 15

<212> PRT

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<220>

<223> HIV-1 gag peptide 91

<400> 711

Lys Ala Arg Val Leu Ala Glu Ala Met Ser Gln Val Thr Asn Ser
 1 5 10 15

<210> 712

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 gag peptide 92

<400> 712

Leu Ala Glu Ala Met Ser Gln Val Thr Asn Ser Ala Thr Ile Met
 1 5 10 15

<210> 713

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 gag peptide 93

<400> 713

Met Ser Gln Val Thr Asn Ser Ala Thr Ile Met Met Gln Arg Gly
 1 5 10 15

<210> 714
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<220>
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<400> 714

Thr Asn Ser Ala Thr Ile Met Met Gln Arg Gly Asn Phe Arg Asn
 1 5 10 15

<210> 715
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<220>
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<400> 715

Thr Ile Met Met Gln Arg Gly Asn Phe Arg Asn Gln Arg Lys Thr
 1 5 10 15

<210> 716
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<220>
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<400> 716

Gln Arg Gly Asn Phe Arg Asn Gln Arg Lys Thr Val Lys Cys Phe
 1 5 10 15

<210> 717
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<400> 717

Phe Arg Asn Gln Arg Lys Thr Val Lys Cys Phe Asn Cys Gly Lys
 1 5 10 15

<210> 718
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<220>

<223> HIV-1 gag peptide 98

<400> 718

Arg Lys Thr Val Lys Cys Phe Asn Cys Gly Lys Glu Gly His Ile
 1 5 10 15

<210> 719

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<220>

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<400> 719

Val Lys Cys Phe Asn Cys Gly Lys Glu Gly His Ile Ala Lys Asn
 1 5 10 15

<210> 720

<211> 15

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<220>

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<400> 720

Asn Cys Gly Lys Glu Gly His Ile Ala Lys Asn Cys Arg Ala Pro
 1 5 10 15

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<211> 15

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<220>

<223> HIV-1 gag peptide 101

<400> 721

Glu Gly His Ile Ala Lys Asn Cys Arg Ala Pro Arg Lys Lys Gly
 1 5 10 15

<210> 722

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<220>

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<400> 722

Ala Lys Asn Cys Arg Ala Pro Arg Lys Lys Gly Cys Trp Lys Cys
 1 5 10 15

<210> 723
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<400> 723

Arg Ala Pro Arg Lys Lys Gly Cys Trp Lys Cys Gly Lys Glu Gly
 1 5 10 15

<210> 724
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<400> 724

Lys Lys Gly Cys Trp Lys Cys Gly Lys Glu Gly His Gln Met Lys
 1 5 10 15

<210> 725
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<220>
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<400> 725

Trp Lys Cys Gly Lys Glu Gly His Gln Met Lys Asp Cys Thr Glu
 1 5 10 15

<210> 726
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<220>
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<400> 726

Lys Glu Gly His Gln Met Lys Asp Cys Thr Glu Arg Gln Ala Asn
 1 5 10 15

<210> 727
 <211> 15
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<220>
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<400> 727

Gln Met Lys Asp Cys Thr Glu Arg Gln Ala Asn Phe Leu Gly Lys
 1 5 10 15

<210> 728
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<220>
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<400> 728

Cys Thr Glu Arg Gln Ala Asn Phe Leu Gly Lys Ile Trp Pro Ser
 1 5 10 15

<210> 729
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<220>
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<400> 729

Gln Ala Asn Phe Leu Gly Lys Ile Trp Pro Ser His Lys Gly Arg
 1 5 10 15

<210> 730
 <211> 15
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<220>
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<400> 730

Leu Gly Lys Ile Trp Pro Ser His Lys Gly Arg Pro Gly Asn Phe
 1 5 10 15

<210> 731
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<220>

<223> HIV-1 gag peptide 111

<400> 731

Trp	Pro	Ser	His	Lys	Gly	Arg	Pro	Gly	Asn	Phe	Leu	Gln	Ser	Arg
1				5					10					15

<210> 732

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<220>

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<400> 732

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1				5					10					15

<210> 733

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<220>

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<400> 733

Gly	Asn	Phe	Leu	Gln	Ser	Arg	Pro	Glu	Pro	Thr	Ala	Pro	Pro	Glu
1				5					10					15

<210> 734

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<220>

<223> HIV-1 gag peptide 114

<400> 734

Gln	Ser	Arg	Pro	Glu	Pro	Thr	Ala	Pro	Pro	Glu	Glu	Ser	Phe	Arg
1				5					10					15

<210> 735

<211> 15

<212> PRT

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<220>

<223> HIV-1 gag peptide 115

<400> 735

Glu Pro Thr Ala Pro Pro Glu Glu Ser Phe Arg Phe Gly Glu Glu
 1 5 10 15

<210> 736
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 <212> PRT
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<220>
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<400> 736

Pro Pro Glu Glu Ser Phe Arg Phe Gly Glu Glu Thr Thr Thr Pro
 1 5 10 15

<210> 737
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 <212> PRT
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<220>
 <223> HIV-1 gag peptide 117

<400> 737

Ser Phe Arg Phe Gly Glu Glu Thr Thr Thr Pro Ser Gln Lys Gln
 1 5 10 15

<210> 738
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<220>
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<400> 738

Gly Glu Glu Thr Thr Thr Pro Ser Gln Lys Gln Glu Pro Ile Asp
 1 5 10 15

<210> 739
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<220>
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<400> 739

Thr Thr Thr Pro Ser Gln Lys Gln Glu Pro Ile Asp Lys Glu Leu
 1 5 10 15

<210> 740

<211> 15
 <212> PRT
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<220>
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<400> 740

Ser Gln Lys Gln Glu Pro Ile Asp Lys Glu Leu Tyr Pro Leu Ala
 1 5 10 15

<210> 741
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 gag peptide 121

<400> 741

Glu Pro Ile Asp Lys Glu Leu Tyr Pro Leu Ala Ser Leu Arg Ser
 1 5 10 15

<210> 742
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 gag peptide 122

<400> 742

Lys Glu Leu Tyr Pro Leu Ala Ser Leu Arg Ser Leu Phe Gly Asn
 1 5 10 15

<210> 743
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 gag peptide 123

<400> 743

Pro Leu Ala Ser Leu Arg Ser Leu Phe Gly Asn Asp Pro Ser Ser
 1 5 10 15

<210> 744
 <211> 12
 <212> PRT
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<220>

<223> HIV-1 gag peptide 124

<400> 744

Leu Arg Ser Leu Phe Gly Asn Asp Pro Ser Ser Gln
1 5 10

<210> 745

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 1

<400> 745

Met Gly Gly Lys Trp Ser Lys Arg Ser Val Val Gly Trp Pro Thr
1 5 10 15

<210> 746

<211> 15

<212> PRT

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<220>

<223> HIV-1 nef peptide 2

<400> 746

Trp Ser Lys Arg Ser Val Val Gly Trp Pro Thr Val Arg Glu Arg
1 5 10 15

<210> 747

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 3

<400> 747

Ser Val Val Gly Trp Pro Thr Val Arg Glu Arg Met Arg Arg Ala
1 5 10 15

<210> 748

<211> 15

<212> PRT

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<220>

<223> HIV-1 nef peptide 4

<400> 748

Trp Pro Thr Val Arg Glu Arg Met Arg Arg Ala Glu Pro Ala Ala

1 5 10 15

<210> 749
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<220>
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<400> 749

Arg Glu Arg Met Arg Arg Ala Glu Pro Ala Ala Asp Gly Val Gly
 1 5 10 15

<210> 750
 <211> 15
 <212> PRT
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<220>
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<400> 750

Arg Arg Ala Glu Pro Ala Ala Asp Gly Val Gly Ala Val Ser Arg
 1 5 10 15

<210> 751
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<220>
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<400> 751

Pro Ala Ala Asp Gly Val Gly Ala Val Ser Arg Asp Leu Glu Lys
 1 5 10 15

<210> 752
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 <212> PRT
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<220>
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<400> 752

Gly Val Gly Ala Val Ser Arg Asp Leu Glu Lys His Gly Ala Ile
 1 5 10 15

<210> 753
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<212> PRT
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<220>
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<400> 753

Val Ser Arg Asp Leu Glu Lys His Gly Ala Ile Thr Ser Ser Asn
1 5 10 15

<210> 754
<211> 15
<212> PRT
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<220>
<223> HIV-1 nef peptide 10

<400> 754

Leu Glu Lys His Gly Ala Ile Thr Ser Ser Asn Thr Ala Ala Asn
1 5 10 15

<210> 755
<211> 15
<212> PRT
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<220>
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<400> 755

Gly Ala Ile Thr Ser Ser Asn Thr Ala Ala Asn Asn Ala Asp Cys
1 5 10 15

<210> 756
<211> 15
<212> PRT
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<220>
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<400> 756

Ser Ser Asn Thr Ala Ala Asn Asn Ala Asp Cys Ala Trp Leu Glu
1 5 10 15

<210> 757
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<212> PRT
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<220>
<223> HIV-1 nef peptide 13

<400> 757

Ala Ala Asn Asn Ala Asp Cys Ala Trp Leu Glu Ala Gln Glu Glu
 1 5 10 15

<210> 758

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 14

<400> 758

Ala Asp Cys Ala Trp Leu Glu Ala Gln Glu Glu Glu Glu Val Gly
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<210> 759

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 15

<400> 759

Trp Leu Glu Ala Gln Glu Glu Glu Glu Val Gly Phe Pro Val Arg
 1 5 10 15

<210> 760

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 16

<400> 760

Gln Glu Glu Glu Glu Val Gly Phe Pro Val Arg Pro Gln Val Pro
 1 5 10 15

<210> 761

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 17

<400> 761

Glu Val Gly Phe Pro Val Arg Pro Gln Val Pro Leu Arg Pro Met
 1 5 10 15

<210> 762
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 nef peptide 18
 <400> 762

Pro Val Arg Pro Gln Val Pro Leu Arg Pro Met Thr Tyr Lys Ala
 1 5 10 15

<210> 763
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 nef peptide 19
 <400> 763

Gln Val Pro Leu Arg Pro Met Thr Tyr Lys Ala Ala Val Asp Leu
 1 5 10 15

<210> 764
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<220>
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 <400> 764

Arg Pro Met Thr Tyr Lys Ala Ala Val Asp Leu Ser His Phe Leu
 1 5 10 15

<210> 765
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 <212> PRT
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<220>
 <223> HIV-1 nef peptide 21

<400> 765

Tyr Lys Ala Ala Val Asp Leu Ser His Phe Leu Lys Glu Lys Gly
 1 5 10 15

<210> 766
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<213> Artificial

<220>

<223> HIV-1 nef peptide 22

<400> 766

Val	Asp	Leu	Ser	His	Phe	Leu	Lys	Glu	Lys	Gly	Gly	Leu	Glu	Gly
1				5					10					15

<210> 767

<211> 15

<212> PRT

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<220>

<223> HIV-1 nef peptide 23

<400> 767

His	Phe	Leu	Lys	Glu	Lys	Gly	Gly	Leu	Glu	Gly	Leu	Ile	Tyr	Ser
1			5						10					15

<210> 768

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 24

<400> 768

Glu	Lys	Gly	Gly	Leu	Glu	Gly	Leu	Ile	Tyr	Ser	Gln	Lys	Arg	Gln
1				5					10					15

<210> 769

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 25

<400> 769

Leu	Glu	Gly	Leu	Ile	Tyr	Ser	Gln	Lys	Arg	Gln	Asp	Ile	Leu	Asp
1				5					10					15

<210> 770

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 26

<400> 770

Ile	Tyr	Ser	Gln	Lys	Arg	Gln	Asp	Ile	Leu	Asp	Leu	Trp	Val	Tyr
1				5					10					15

<210> 771

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 27

<400> 771

Lys	Arg	Gln	Asp	Ile	Leu	Asp	Leu	Trp	Val	Tyr	His	Thr	Gln	Gly
1				5					10					15

<210> 772

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 28

<400> 772

Ile	Leu	Asp	Leu	Trp	Val	Tyr	His	Thr	Gln	Gly	Tyr	Phe	Pro	Asp
1			5						10					15

<210> 773

<211> 15

<212> PRT

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<220>

<223> HIV-1 nef peptide 29

<400> 773

Trp	Val	Tyr	His	Thr	Gln	Gly	Tyr	Phe	Pro	Asp	Trp	Gln	Asn	Tyr
1				5					10					15

<210> 774

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 30

<400> 774

Thr	Gln	Gly	Tyr	Phe	Pro	Asp	Trp	Gln	Asn	Tyr	Thr	Pro	Gly	Pro
1				5					10					15

<210> 775
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<220>
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<400> 775

Phe	Pro	Asp	Trp	Gln	Asn	Tyr	Thr	Pro	Gly	Pro	Gly	Ile	Arg	Tyr
1				5					10					15

<210> 776
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<220>
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<400> 776

Gln	Asn	Tyr	Thr	Pro	Gly	Pro	Gly	Ile	Arg	Tyr	Pro	Leu	Thr	Phe
1				5					10					15

<210> 777
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 <212> PRT
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<220>
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<400> 777

Pro	Gly	Pro	Gly	Ile	Arg	Tyr	Pro	Leu	Thr	Phe	Gly	Trp	Cys	Phe
1				5					10					15

<210> 778
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<220>
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<400> 778

Ile	Arg	Tyr	Pro	Leu	Thr	Phe	Gly	Trp	Cys	Phe	Lys	Leu	Val	Pro
1				5					10					15

<210> 779
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<220>

<223> HIV-1 nef peptide 35

<400> 779

Leu	Thr	Phe	Gly	Trp	Cys	Phe	Lys	Leu	Val	Pro	Val	Glu	Pro	Glu
1				5					10					15

<210> 780

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 36

<400> 780

Trp	Cys	Phe	Lys	Leu	Val	Pro	Val	Glu	Pro	Glu	Lys	Val	Glu	Glu
1				5					10					15

<210> 781

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 37

<400> 781

Leu	Val	Pro	Val	Glu	Pro	Glu	Lys	Val	Glu	Glu	Ala	Asn	Glu	Gly
1				5					10					15

<210> 782

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 38

<400> 782

Glu	Pro	Glu	Lys	Val	Glu	Glu	Ala	Asn	Glu	Gly	Glu	Asn	Asn	Ser
1				5					10					15

<210> 783

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 39

<400> 783

Val Glu Glu Ala Asn Glu Gly Glu Asn Asn Ser Leu Leu His Pro
 1 5 10 15

<210> 784
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 <212> PRT
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<220>
 <223> HIV-1 nef peptide 40

<400> 784

Asn Glu Gly Glu Asn Asn Ser Leu Leu His Pro Met Ser Leu His
 1 5 10 15

<210> 785
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 nef peptide 41

<400> 785

Asn Asn Ser Leu Leu His Pro Met Ser Leu His Gly Met Asp Asp
 1 5 10 15

<210> 786
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 nef peptide 42

<400> 786

Leu His Pro Met Ser Leu His Gly Met Asp Asp Pro Glu Arg Glu
 1 5 10 15

<210> 787
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 nef peptide 43

<400> 787

Ser Leu His Gly Met Asp Asp Pro Glu Arg Glu Val Leu Val Trp
 1 5 10 15

<210> 788
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 <212> PRT
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<220>
 <223> HIV-1 nef peptide 44

<400> 788

Met	Asp	Asp	Pro	Glu	Arg	Glu	Val	Leu	Val	Trp	Lys	Phe	Asp	Ser
1				5					10					15

<210> 789
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<220>
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<400> 789

Glu	Arg	Glu	Val	Leu	Val	Trp	Lys	Phe	Asp	Ser	Arg	Leu	Ala	Phe
1			5						10					15

<210> 790
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<220>
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<400> 790

Leu	Val	Trp	Lys	Phe	Asp	Ser	Arg	Leu	Ala	Phe	His	His	Met	Ala
1				5					10					15

<210> 791
 <211> 15
 <212> PRT
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<220>
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<400> 791

Phe	Asp	Ser	Arg	Leu	Ala	Phe	His	His	Met	Ala	Arg	Glu	Leu	His
1				5					10					15

<210> 792
 <211> 15
 <212> PRT
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<220>

<223> HIV-1 nef peptide 48

<400> 792

Leu Ala Phe His His Met Ala Arg Glu Leu His Pro Glu Tyr Tyr
 1 5 10 15

<210> 793

<211> 14

<212> PRT

<213> Artificial

<220>

<223> HIV-1 nef peptide 49

<400> 793

His Met Ala Arg Glu Leu His Pro Glu Tyr Tyr Lys Asp Cys
 1 5 10

<210> 794

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 1

<400> 794

Phe Phe Arg Glu Asp Leu Ala Phe Pro Gln Gly Lys Ala Arg Glu
 1 5 10 15

<210> 795

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 2

<400> 795

Asp Leu Ala Phe Pro Gln Gly Lys Ala Arg Glu Phe Ser Ser Glu
 1 5 10 15

<210> 796

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 3

<400> 796

Pro Gln Gly Lys Ala Arg Glu Phe Ser Ser Glu Gln Thr Arg Ala
 1 5 10 15

<210> 797
 <211> 15
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 <213> Artificial

<220>
 <223> HIV-1 pol peptide 4

<400> 797

Ala Arg Glu Phe Ser Ser Glu Gln Thr Arg Ala Asn Ser Pro Thr
 1 5 10 15

<210> 798
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 5

<400> 798

Ser Ser Glu Gln Thr Arg Ala Asn Ser Pro Thr Arg Arg Glu Leu
 1 5 10 15

<210> 799
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 6

<400> 799

Thr Arg Ala Asn Ser Pro Thr Arg Arg Glu Leu Gln Val Trp Gly
 1 5 10 15

<210> 800
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 7

<400> 800

Ser Pro Thr Arg Arg Glu Leu Gln Val Trp Gly Arg Asp Asn Asn
 1 5 10 15

<210> 801

<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 pol peptide 8

<400> 801

Arg Glu Leu Gln Val Trp Gly Arg Asp Asn Asn Ser Leu Ser Glu
1 5 10 15

<210> 802
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 pol peptide 9

<400> 802

Val Trp Gly Arg Asp Asn Asn Ser Leu Ser Glu Ala Gly Ala Asp
1 5 10 15

<210> 803
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 pol peptide 10

<400> 803

Asp Asn Asn Ser Leu Ser Glu Ala Gly Ala Asp Arg Gln Gly Thr
1 5 10 15

<210> 804
<211> 15
<212> PRT
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<220>
<223> HIV-1 pol peptide 11

<400> 804

Leu Ser Glu Ala Gly Ala Asp Arg Gln Gly Thr Val Ser Phe Ser
1 5 10 15

<210> 805
<211> 15
<212> PRT
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<220>

<223> HIV-1 pol peptide 12

<400> 805

Gly Ala Asp Arg Gln Gly Thr Val Ser Phe Ser Phe Pro Gln Ile
1 5 10 15

<210> 806

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 13

<400> 806

Gln Gly Thr Val Ser Phe Ser Phe Pro Gln Ile Thr Leu Trp Gln
1 5 10 15

<210> 807

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 14

<400> 807

Ser Phe Ser Phe Pro Gln Ile Thr Leu Trp Gln Arg Pro Leu Val
1 5 10 15

<210> 808

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 15

<400> 808

Pro Gln Ile Thr Leu Trp Gln Arg Pro Leu Val Thr Ile Lys Ile
1 5 10 15

<210> 809

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 16

<400> 809

Leu Trp Gln Arg Pro Leu Val Thr Ile Lys Ile Gly Gly Gln Leu

<210>	814
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<212> PRT
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<220>
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<400> 814

Asp	Thr	Gly	Ala	Asp	Asp	Thr	Val	Leu	Glu	Glu	Met	Asn	Leu	Pro
1				5					10					15

<210> 815
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<220>
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<400> 815

Asp	Asp	Thr	Val	Leu	Glu	Glu	Met	Asn	Leu	Pro	Gly	Arg	Trp	Lys
1				5					10					15

<210> 816
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<220>
 <223> HIV-1 pol peptide 23

<400> 816

Leu	Glu	Glu	Met	Asn	Leu	Pro	Gly	Arg	Trp	Lys	Pro	Lys	Met	Ile
1				5					10					15

<210> 817
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<220>
 <223> HIV-1 pol peptide 24

<400> 817

Asn	Leu	Pro	Gly	Arg	Trp	Lys	Pro	Lys	Met	Ile	Gly	Gly	Ile	Gly
1				5					10					15

<210> 818
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<220>
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<400> 818

Arg Trp Lys Pro Lys Met Ile Gly Gly Ile Gly Gly Phe Ile Lys
 1 5 10 15

<210> 819

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 26

<400> 819

Lys Met Ile Gly Gly Ile Gly Gly Phe Ile Lys Val Arg Gln Tyr
 1 5 10 15

<210> 820

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 27

<400> 820

Gly Ile Gly Gly Phe Ile Lys Val Arg Gln Tyr Asp Gln Ile Leu
 1 5 10 15

<210> 821

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 28

<400> 821

Phe Ile Lys Val Arg Gln Tyr Asp Gln Ile Leu Ile Glu Ile Cys
 1 5 10 15

<210> 822

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 29

<400> 822

Arg Gln Tyr Asp Gln Ile Leu Ile Glu Ile Cys Gly His Lys Ala
 1 5 10 15

<210> 823
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 <212> PRT
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<220>
 <223> HIV-1 pol peptide 30
 <400> 823

Gln Ile Leu Ile Glu Ile Cys Gly His Lys Ala Ile Gly Thr Val
 1 5 10 15

<210> 824
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 <212> PRT
 <213> Artificial

<220>
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 <400> 824

Glu Ile Cys Gly His Lys Ala Ile Gly Thr Val Leu Val Gly Pro
 1 5 10 15

<210> 825
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 32
 <400> 825

His Lys Ala Ile Gly Thr Val Leu Val Gly Pro Thr Pro Val Asn
 1 5 10 15

<210> 826
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 33
 <400> 826

Gly Thr Val Leu Val Gly Pro Thr Pro Val Asn Ile Ile Gly Arg
 1 5 10 15

<210> 827
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<213> Artificial

<220>

<223> HIV-1 pol peptide 34

<400> 827

Val	Gly	Pro	Thr	Pro	Val	Asn	Ile	Ile	Gly	Arg	Asn	Leu	Leu	Thr
1				5					10					15

<210> 828

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 35

<400> 828

Pro	Val	Asn	Ile	Ile	Gly	Arg	Asn	Leu	Leu	Thr	Gln	Ile	Gly	Cys
1				5					10					15

<210> 829

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 36

<400> 829

Ile	Gly	Arg	Asn	Leu	Leu	Thr	Gln	Ile	Gly	Cys	Thr	Leu	Asn	Phe
1				5					10					15

<210> 830

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 37

<400> 830

Leu	Leu	Thr	Gln	Ile	Gly	Cys	Thr	Leu	Asn	Phe	Pro	Ile	Ser	Pro
1				5					10					15

<210> 831

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 38

<400> 831

Ile Gly Cys Thr Leu Asn Phe Pro Ile Ser Pro Ile Glu Thr Val
 1 5 10 15

<210> 832

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 39

<400> 832

Leu Asn Phe Pro Ile Ser Pro Ile Glu Thr Val Pro Val Lys Leu
 1 5 10 15

<210> 833

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 40

<400> 833

Ile Ser Pro Ile Glu Thr Val Pro Val Lys Leu Lys Pro Gly Met
 1 5 10 15

<210> 834

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 41

<400> 834

Glu Thr Val Pro Val Lys Leu Lys Pro Gly Met Asp Gly Pro Lys
 1 5 10 15

<210> 835

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 42

<400> 835

Val Lys Leu Lys Pro Gly Met Asp Gly Pro Lys Val Lys Gln Trp
 1 5 10 15

<210> 836
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 <212> PRT
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<220>
 <223> HIV-1 pol peptide 43

<400> 836

Pro Gly Met Asp Gly Pro Lys Val Lys Gln Trp Pro Leu Thr Glu
 1 5 10 15

<210> 837
 <211> 15
 <212> PRT
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<220>
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<400> 837

Gly Pro Lys Val Lys Gln Trp Pro Leu Thr Glu Glu Lys Ile Lys
 1 5 10 15

<210> 838
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 45

<400> 838

Lys Gln Trp Pro Leu Thr Glu Glu Lys Ile Lys Ala Leu Val Glu
 1 5 10 15

<210> 839
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 46

<400> 839

Leu Thr Glu Glu Lys Ile Lys Ala Leu Val Glu Ile Cys Thr Glu
 1 5 10 15

<210> 840
 <211> 15
 <212> PRT
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Lys Ile Ser Lys Ile Gly Pro Glu Asn Pro Tyr Asn Thr Pro Val
 1 5 10 15

<210> 845
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 52

<400> 845

Ile Gly Pro Glu Asn Pro Tyr Asn Thr Pro Val Phe Ala Ile Lys
 1 5 10 15

<210> 846
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 53

<400> 846

Asn Pro Tyr Asn Thr Pro Val Phe Ala Ile Lys Lys Lys Asp Ser
 1 5 10 15

<210> 847
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 54

<400> 847

Thr Pro Val Phe Ala Ile Lys Lys Lys Asp Ser Thr Lys Trp Arg
 1 5 10 15

<210> 848
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 55

<400> 848

Ala Ile Lys Lys Lys Asp Ser Thr Lys Trp Arg Lys Leu Val Asp
 1 5 10 15

<210> 849
 <211> 15
 <212> PRT
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<220>
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<400> 849

Lys Asp Ser Thr Lys Trp Arg Lys Leu Val Asp Phe Arg Glu Leu
 1 5 10 15

<210> 850
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 57

<400> 850

Lys Trp Arg Lys Leu Val Asp Phe Arg Glu Leu Asn Lys Arg Thr
 1 5 10 15

<210> 851
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 <212> PRT
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<220>
 <223> HIV-1 pol peptide 58

<400> 851

Leu Val Asp Phe Arg Glu Leu Asn Lys Arg Thr Gln Asp Phe Trp
 1 5 10 15

<210> 852
 <211> 15
 <212> PRT
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<220>
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<400> 852

Arg Glu Leu Asn Lys Arg Thr Gln Asp Phe Trp Glu Val Gln Leu
 1 5 10 15

<210> 853
 <211> 15
 <212> PRT
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<220>

<223> HIV-1 pol peptide 60

<400> 853

Lys Arg Thr Gln Asp Phe Trp Glu Val Gln Leu Gly Ile Pro His
 1 5 10 15

<210> 854

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 61

<400> 854

Asp Phe Trp Glu Val Gln Leu Gly Ile Pro His Pro Ala Gly Leu
 1 5 10 15

<210> 855

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 62

<400> 855

Val Gln Leu Gly Ile Pro His Pro Ala Gly Leu Lys Lys Lys Lys
 1 5 10 15

<210> 856

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 63

<400> 856

Ile Pro His Pro Ala Gly Leu Lys Lys Lys Lys Ser Val Thr Val
 1 5 10 15

<210> 857

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 64

<400> 857

Ala Gly Leu Lys Lys Lys Lys Ser Val Thr Val Leu Asp Val Gly
 1 5 10 15

<210> 858
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 65

<400> 858

Lys Lys Lys Ser Val Thr Val Leu Asp Val Gly Asp Ala Tyr Phe
 1 5 10 15

<210> 859
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 66

<400> 859

Val Thr Val Leu Asp Val Gly Asp Ala Tyr Phe Ser Val Pro Leu
 1 5 10 15

<210> 860
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 67

<400> 860

Asp Val Gly Asp Ala Tyr Phe Ser Val Pro Leu Asp Lys Asp Phe
 1 5 10 15

<210> 861
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 68

<400> 861

Ala Tyr Phe Ser Val Pro Leu Asp Lys Asp Phe Arg Lys Tyr Thr
 1 5 10 15

<210> 862

<211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 69

<400> 862

Val	Pro	Leu	Asp	Lys	Asp	Phe	Arg	Lys	Tyr	Thr	Ala	Phe	Thr	Ile
1				5					10					15

<210> 863
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 70

<400> 863

Lys	Asp	Phe	Arg	Lys	Tyr	Thr	Ala	Phe	Thr	Ile	Pro	Ser	Ile	Asn
1				5					10					15

<210> 864
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 71

<400> 864

Lys	Tyr	Thr	Ala	Phe	Thr	Ile	Pro	Ser	Ile	Asn	Asn	Glu	Thr	Pro
1				5					10					15

<210> 865
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 72

<400> 865

Phe	Thr	Ile	Pro	Ser	Ile	Asn	Asn	Glu	Thr	Pro	Gly	Ile	Arg	Tyr
1				5					10					15

<210> 866
 <211> 15
 <212> PRT
 <213> Artificial

<220>

<223> HIV-1 pol peptide 73

<400> 866

Ser Ile Asn Asn Glu Thr Pro Gly Ile Arg Tyr Gln Tyr Asn Val
1 5 10 15

<210> 867

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 74

<400> 867

Glu Thr Pro Gly Ile Arg Tyr Gln Tyr Asn Val Leu Pro Gln Gly
1 5 10 15

<210> 868

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 75

<400> 868

Ile Arg Tyr Gln Tyr Asn Val Leu Pro Gln Gly Trp Lys Gly Ser
1 5 10 15

<210> 869

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 76

<400> 869

Tyr Asn Val Leu Pro Gln Gly Trp Lys Gly Ser Pro Ala Ile Phe
1 5 10 15

<210> 870

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 77

<400> 870

Pro Gln Gly Trp Lys Gly Ser Pro Ala Ile Phe Gln Ser Ser Met

1 5 10 15

<210> 871
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 78

<400> 871

Lys Gly Ser Pro Ala Ile Phe Gln Ser Ser Met Thr Lys Ile Leu
 1 5 10 15

<210> 872
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 79

<400> 872

Ala Ile Phe Gln Ser Ser Met Thr Lys Ile Leu Glu Pro Phe Arg
 1 5 10 15

<210> 873
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 80

<400> 873

Ser Ser Met Thr Lys Ile Leu Glu Pro Phe Arg Lys Gln Asn Pro
 1 5 10 15

<210> 874
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 81

<400> 874

Lys Ile Leu Glu Pro Phe Arg Lys Gln Asn Pro Asp Ile Val Ile
 1 5 10 15

<210> 875
 <211> 15

<212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 82

<400> 875

Pro Phe Arg Lys Gln Asn Pro Asp Ile Val Ile Tyr Gln Tyr Met
 1 5 10 15

<210> 876
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 83

<400> 876

Gln Asn Pro Asp Ile Val Ile Tyr Gln Tyr Met Asp Asp Leu Tyr
 1 5 10 15

<210> 877
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 84

<400> 877

Ile Val Ile Tyr Gln Tyr Met Asp Asp Leu Tyr Val Gly Ser Asp
 1 5 10 15

<210> 878
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 85

<400> 878

Gln Tyr Met Asp Asp Leu Tyr Val Gly Ser Asp Leu Glu Ile Gly
 1 5 10 15

<210> 879
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 86

<400> 879

Asp Leu Tyr Val Gly Ser Asp Leu Glu Ile Gly Gln His Arg Thr
 1 5 10 15

<210> 880

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 87

<400> 880

Gly Ser Asp Leu Glu Ile Gly Gln His Arg Thr Lys Ile Glu Glu
 1 5 10 15

<210> 881

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 88

<400> 881

Glu Ile Gly Gln His Arg Thr Lys Ile Glu Glu Leu Arg Gln His
 1 5 10 15

<210> 882

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 89

<400> 882

His Arg Thr Lys Ile Glu Glu Leu Arg Gln His Leu Leu Arg Trp
 1 5 10 15

<210> 883

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 90

<400> 883

Ile Glu Glu Leu Arg Gln His Leu Leu Arg Trp Gly Phe Thr Thr
 1 5 10 15

<210> 884
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 91

<400> 884

Arg Gln His Leu Leu Arg Trp Gly Phe Thr Thr Pro Asp Lys Lys
 1 5 10 15

<210> 885
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 92

<400> 885

Leu Arg Trp Gly Phe Thr Thr Pro Asp Lys Lys His Gln Lys Glu
 1 5 10 15

<210> 886
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 93

<400> 886

Phe Thr Thr Pro Asp Lys Lys His Gln Lys Glu Pro Pro Phe Leu
 1 5 10 15

<210> 887
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 94

<400> 887

Asp Lys Lys His Gln Lys Glu Pro Pro Phe Leu Trp Met Gly Tyr
 1 5 10 15

<210> 888
 <211> 15
 <212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 95

<400> 888

Gln Lys Glu Pro Pro Phe Leu Trp Met Gly Tyr Glu Leu His Pro
1 5 10 15

<210> 889

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 96

<400> 889

Pro Phe Leu Trp Met Gly Tyr Glu Leu His Pro Asp Lys Trp Thr
1 5 10 15

<210> 890

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 97

<400> 890

Met Gly Tyr Glu Leu His Pro Asp Lys Trp Thr Val Gln Pro Ile
1 5 10 15

<210> 891

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 98

<400> 891

Leu His Pro Asp Lys Trp Thr Val Gln Pro Ile Val Leu Pro Glu
1 5 10 15

<210> 892

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 99

<400> 892

Lys	Trp	Thr	Val	Gln	Pro	Ile	Val	Leu	Pro	Glu	Lys	Asp	Ser	Trp
1				5					10					15

<210> 893

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 100

<400> 893

Gln	Pro	Ile	Val	Leu	Pro	Glu	Lys	Asp	Ser	Trp	Thr	Val	Asn	Asp
1				5					10					15

<210> 894

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 101

<400> 894

Leu	Pro	Glu	Lys	Asp	Ser	Trp	Thr	Val	Asn	Asp	Ile	Gln	Lys	Leu
1				5					10					15

<210> 895

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 102

<400> 895

Asp	Ser	Trp	Thr	Val	Asn	Asp	Ile	Gln	Lys	Leu	Val	Gly	Lys	Leu
1				5					10					15

<210> 896

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 103

<400> 896

Val	Asn	Asp	Ile	Gln	Lys	Leu	Val	Gly	Lys	Leu	Asn	Trp	Ala	Ser
1				5					10					15

<210> 897
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<220>
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<400> 897

Gln Lys Leu Val Gly Lys Leu Asn Trp Ala Ser Gln Ile Tyr Ala
 1 5 10 15

<210> 898
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 105

<400> 898

Gly Lys Leu Asn Trp Ala Ser Gln Ile Tyr Ala Gly Ile Lys Val
 1 5 10 15

<210> 899
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 106

<400> 899

Trp Ala Ser Gln Ile Tyr Ala Gly Ile Lys Val Lys Gln Leu Cys
 1 5 10 15

<210> 900
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 107

<400> 900

Ile Tyr Ala Gly Ile Lys Val Lys Gln Leu Cys Lys Leu Leu Arg
 1 5 10 15

<210> 901
 <211> 15
 <212> PRT
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<220>

<223> HIV-1 pol peptide 108

<400> 901

Ile Lys Val Lys Gln Leu Cys Lys Leu Leu Arg Gly Thr Lys Ala
1 5 10 15

<210> 902

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 109

<400> 902

Gln Leu Cys Lys Leu Leu Arg Gly Thr Lys Ala Leu Thr Glu Val
1 5 10 15

<210> 903

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 110

<400> 903

Leu Leu Arg Gly Thr Lys Ala Leu Thr Glu Val Ile Pro Leu Thr
1 5 10 15

<210> 904

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 111

<400> 904

Thr Lys Ala Leu Thr Glu Val Ile Pro Leu Thr Glu Glu Ala Glu
1 5 10 15

<210> 905

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 112

<400> 905

Thr Glu Val Ile Pro Leu Thr Glu Glu Ala Glu Leu Glu Leu Ala
 1 5 10 15

<210> 906
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 113

<400> 906

Pro Leu Thr Glu Glu Ala Glu Leu Glu Leu Ala Glu Asn Arg Glu
 1 5 10 15

<210> 907
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 114

<400> 907

Glu Ala Glu Leu Glu Leu Ala Glu Asn Arg Glu Ile Leu Lys Glu
 1 5 10 15

<210> 908
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 115

<400> 908

Glu Leu Ala Glu Asn Arg Glu Ile Leu Lys Glu Pro Val His Gly
 1 5 10 15

<210> 909
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 116

<400> 909

Asn Arg Glu Ile Leu Lys Glu Pro Val His Gly Val Tyr Tyr Asp
 1 5 10 15

<210> 910
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 117

<400> 910

Leu Lys Glu Pro Val His Gly Val Tyr Tyr Asp Pro Ser Lys Asp
 1 5 10 15

<210> 911
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 118

<400> 911

Val His Gly Val Tyr Tyr Asp Pro Ser Lys Asp Leu Ile Ala Glu
 1 5 10 15

<210> 912
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 pol peptide 119

<400> 912

Tyr Tyr Asp Pro Ser Lys Asp Leu Ile Ala Glu Ile Gln Lys Gln
 1 5 10 15

<210> 913
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 120

<400> 913

Ser Lys Asp Leu Ile Ala Glu Ile Gln Lys Gln Gly Gln Gly Gln
 1 5 10 15

<210> 914
 <211> 15
 <212> PRT
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<220>

<223> HIV-1 pol peptide 121

<400> 914

Ile Ala Glu Ile Gln Lys Gln Gly Gln Gly Gln Trp Thr Tyr Gln
1 5 10 15

<210> 915

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 122

<400> 915

Gln Lys Gln Gly Gln Gly Gln Trp Thr Tyr Gln Ile Tyr Gln Glu
1 5 10 15

<210> 916

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 123

<400> 916

Gln Gly Gln Trp Thr Tyr Gln Ile Tyr Gln Glu Pro Phe Lys Asn
1 5 10 15

<210> 917

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 124

<400> 917

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 1 5 10 15

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 1 5 10 15

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Tyr Ala Arg Met Arg Gly Ala His Thr Asn Asp Val Lys Gln Leu
 1 5 10 15

<210> 922
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<400> 922

Arg Gly Ala His Thr Asn Asp Val Lys Gln Leu Thr Glu Ala Val
 1 5 10 15

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<400> 925

Glu	Ala	Val	Gln	Lys	Ile	Ala	Thr	Glu	Ser	Ile	Val	Ile	Trp	Gly
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<400> 926

Lys	Ile	Ala	Thr	Glu	Ser	Ile	Val	Ile	Trp	Gly	Lys	Thr	Pro	Lys
1				5					10					15

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<400> 927

Glu Ser Ile Val Ile Trp Gly Lys Thr Pro Lys Phe Lys Leu Pro
1 5 10 15

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<400> 928

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1 5 10 15

<210> 929

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<400> 929

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1 5 10 15

<210> 930

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<220>

<223> HIV-1 pol peptide 137

<400> 930

Lys Leu Pro Ile Gln Lys Glu Thr Trp Glu Ala Trp Trp Thr Glu
1 5 10 15

<210> 931

<211> 15

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<213> Artificial

<220>

<223> HIV-1 pol peptide 138

<400> 931

Gln Lys Glu Thr Trp Glu Ala Trp Trp Thr Glu Tyr Trp Gln Ala

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<400>   932

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<400> 937

Asn Thr Pro Pro Leu Val Lys Leu Trp Tyr Gln Leu Glu Lys Glu
 1 5 10 15

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<400> 938

Leu Val Lys Leu Trp Tyr Gln Leu Glu Lys Glu Pro Ile Val Gly
 1 5 10 15

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<400> 940

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1				5					10					15

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<400> 941

Ile	Val	Gly	Ala	Glu	Thr	Phe	Tyr	Val	Asp	Gly	Ala	Ala	Asn	Arg
1				5					10					15

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<400> 942

Glu	Thr	Phe	Tyr	Val	Asp	Gly	Ala	Ala	Asn	Arg	Glu	Thr	Lys	Leu
1				5					10					15

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<400> 943

Val	Asp	Gly	Ala	Ala	Asn	Arg	Glu	Thr	Lys	Leu	Gly	Lys	Ala	Gly
1				5					10					15

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<400> 944

Ala	Asn	Arg	Glu	Thr	Lys	Leu	Gly	Lys	Ala	Gly	Tyr	Val	Thr	Asp
1				5					10					15

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Lys Ala Gly Tyr Val Thr Asp Arg Gly Arg Gln Lys Val Val Ser
 1 5 10 15

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Val Thr Asp Arg Gly Arg Gln Lys Val Val Ser Leu Thr Asp Thr
 1 5 10 15

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Gly Arg Gln Lys Val Val Ser Leu Thr Asp Thr Thr Asn Gln Lys
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<220>

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<400> 949

Val	Val	Ser	Leu	Thr	Asp	Thr	Thr	Asn	Gln	Lys	Thr	Glu	Leu	Gln
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<400> 950

Thr	Asp	Thr	Thr	Asn	Gln	Lys	Thr	Glu	Leu	Gln	Ala	Ile	His	Leu
1				5					10					15

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<220>

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<400> 951

Asn	Gln	Lys	Thr	Glu	Leu	Gln	Ala	Ile	His	Leu	Ala	Leu	Gln	Asp
1				5					10					15

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<220>

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<400> 952

Glu	Leu	Gln	Ala	Ile	His	Leu	Ala	Leu	Gln	Asp	Ser	Gly	Leu	Glu
1				5					10					15

<210> 953

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<400> 953

Ile His Leu Ala Leu Gln Asp Ser Gly Leu Glu Val Asn Ile Val
1 5 10 15

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<220>

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<400> 954

Leu Gln Asp Ser Gly Leu Glu Val Asn Ile Val Thr Asp Ser Gln
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<210> 955

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<220>

<223> HIV-1 pol peptide 162

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Gly Leu Glu Val Asn Ile Val Thr Asp Ser Gln Tyr Ala Leu Gly
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<212> PRT

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<220>

<223> HIV-1 pol peptide 163

<400> 956

Asn Ile Val Thr Asp Ser Gln Tyr Ala Leu Gly Ile Ile Gln Ala
1 5 10 15

<210> 957

<211> 15

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<223> HIV-1 pol peptide 164

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Asp Ser Gln Tyr Ala Leu Gly Ile Ile Gln Ala Gln Pro Asp Lys
1 5 10 15

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<220>
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<400> 958

Ala	Leu	Gly	Ile	Ile	Gln	Ala	Gln	Pro	Asp	Lys	Ser	Glu	Ser	Glu
1				5					10					15

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<400> 959

Ile	Gln	Ala	Gln	Pro	Asp	Lys	Ser	Glu	Ser	Glu	Leu	Val	Ser	Gln
1				5					10					15

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<400> 960

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1				5					10					15

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<400> 961

Glu	Ser	Glu	Leu	Val	Ser	Gln	Ile	Ile	Glu	Gln	Leu	Ile	Lys	Lys
1				5					10					15

<210> 962
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<400> 962

Val Ser Gln Ile Ile Glu Gln Leu Ile Lys Lys Glu Lys Val Tyr
1 5 10 15

<210> 963

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<223> HIV-1 pol peptide 171

<400> 963

Ile Glu Gln Leu Ile Lys Lys Glu Lys Val Tyr Leu Ala Trp Val
1 5 10 15

<210> 964

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<220>

<223> HIV-1 pol peptide 171

<400> 964

Ile Lys Lys Glu Lys Val Tyr Leu Ala Trp Val Pro Ala His Lys
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<210> 965

<211> 15

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<220>

<223> HIV-1 pol peptide 172

<400> 965

Lys Val Tyr Leu Ala Trp Val Pro Ala His Lys Gly Ile Gly Gly
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<220>

<223> HIV-1 pol peptide 173

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Ala Trp Val Pro Ala His Lys Gly Ile Gly Gly Asn Glu Gln Val
1 5 10 15

<210> 967
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<220>
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<400> 967

Ala His Lys Gly Ile Gly Gly Asn Glu Gln Val Asp Lys Leu Val
1 5 10 15

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<212> PRT
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<220>
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<400> 968

Ile Gly Gly Asn Glu Gln Val Asp Lys Leu Val Ser Ala Gly Ile
1 5 10 15

<210> 969
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<220>
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<400> 969

Glu Gln Val Asp Lys Leu Val Ser Ala Gly Ile Arg Lys Val Leu
1 5 10 15

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<220>
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<400> 970

Lys Leu Val Ser Ala Gly Ile Arg Lys Val Leu Phe Leu Asp Gly
1 5 10 15

<210> 971
<211> 15
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<220>
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<400> 971

Ala Gly Ile Arg Lys Val Leu Phe Leu Asp Gly Ile Asp Lys Ala
1 5 10 15

<210> 972
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<220>
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<400> 972

Lys Val Leu Phe Leu Asp Gly Ile Asp Lys Ala Gln Glu Glu His
1 5 10 15

<210> 973
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<220>
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<400> 973

Leu Asp Gly Ile Asp Lys Ala Gln Glu Glu His Glu Lys Tyr His
1 5 10 15

<210> 974
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<400> 974

Asp Lys Ala Gln Glu Glu His Glu Lys Tyr His Ser Asn Trp Arg
1 5 10 15

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Glu	Glu	His	Glu	Lys	Tyr	His	Ser	Asn	Trp	Arg	Ala	Met	Ala	Ser
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<400> 976

Lys	Tyr	His	Ser	Asn	Trp	Arg	Ala	Met	Ala	Ser	Asp	Phe	Asn	Leu
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<210> 977

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<400> 977

Asn	Trp	Arg	Ala	Met	Ala	Ser	Asp	Phe	Asn	Leu	Pro	Pro	Val	Val
1				5					10					15

<210> 978

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<400> 978

Met	Ala	Ser	Asp	Phe	Asn	Leu	Pro	Pro	Val	Val	Ala	Lys	Glu	Ile
1				5					10					15

<210> 979

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Phe Asn Leu Pro Pro Val Val Ala Lys Glu Ile Val Ala Ser Cys
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<220>
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<400> 980

Pro Val Val Ala Lys Glu Ile Val Ala Ser Cys Asp Lys Cys Gln
1 5 10 15

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<400> 981

Lys Glu Ile Val Ala Ser Cys Asp Lys Cys Gln Leu Lys Gly Glu
1 5 10 15

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<400> 982

Ala Ser Cys Asp Lys Cys Gln Leu Lys Gly Glu Ala Met His Gly
1 5 10 15

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<400> 983

Lys Cys Gln Leu Lys Gly Glu Ala Met His Gly Gln Val Asp Cys
1 5 10 15

<210> 984

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<400> 984

Lys Gly Glu Ala Met His Gly Gln Val Asp Cys Ser Pro Gly Ile
 1 5 10 15

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<400> 985

Met His Gly Gln Val Asp Cys Ser Pro Gly Ile Trp Gln Leu Asp
 1 5 10 15

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Val Asp Cys Ser Pro Gly Ile Trp Gln Leu Asp Cys Thr His Leu
 1 5 10 15

<210> 987
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<220>
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<400> 987

Pro Gly Ile Trp Gln Leu Asp Cys Thr His Leu Glu Gly Lys Ile
 1 5 10 15

<210> 988
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<400> 988

Gln Leu Asp Cys Thr His Leu Glu Gly Lys Ile Ile Leu Val Ala
1 5 10 15

<210> 989

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<220>

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<400> 989

Thr His Leu Glu Gly Lys Ile Ile Leu Val Ala Val His Val Ala
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<210> 990

<211> 15

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<220>

<223> HIV-1 pol peptide 197

<400> 990

Gly Lys Ile Ile Leu Val Ala Val His Val Ala Ser Gly Tyr Ile
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<210> 991

<211> 15

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<220>

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<400> 991

Leu Val Ala Val His Val Ala Ser Gly Tyr Ile Glu Ala Glu Val
1 5 10 15

<210> 992

<211> 15

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<220>

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<400> 992

His Val Ala Ser Gly Tyr Ile Glu Ala Glu Val Ile Pro Ala Glu

1 5 10 15

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Gly Tyr Ile Glu Ala Glu Val Ile Pro Ala Glu Thr Gly Gln Glu
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<210> 994
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<220>
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Ala Glu Val Ile Pro Ala Glu Thr Gly Gln Glu Thr Ala Tyr Phe
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<220>
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<400> 995

Pro Ala Glu Thr Gly Gln Glu Thr Ala Tyr Phe Leu Leu Lys Leu
 1 5 10 15

<210> 996
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<220>
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<400> 996

Gly Gln Glu Thr Ala Tyr Phe Leu Leu Lys Leu Ala Gly Arg Trp
 1 5 10 15

<210> 997
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<400> 997

Ala	Tyr	Phe	Leu	Leu	Lys	Leu	Ala	Gly	Arg	Trp	Pro	Val	Lys	Thr
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<400> 998

Leu	Lys	Leu	Ala	Gly	Arg	Trp	Pro	Val	Lys	Thr	Ile	His	Thr	Asp
1				5					10					15

<210> 999
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<400> 999

Gly	Arg	Trp	Pro	Val	Lys	Thr	Ile	His	Thr	Asp	Asn	Gly	Ser	Asn
1				5					10					15

<210> 1000
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<400> 1000

Val	Lys	Thr	Ile	His	Thr	Asp	Asn	Gly	Ser	Asn	Phe	Thr	Ser	Thr
1				5					10					15

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<220>
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<400> 1001

His	Thr	Asp	Asn	Gly	Ser	Asn	Phe	Thr	Ser	Thr	Thr	Val	Lys	Ala
1				5					10					15

<210> 1002

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<212> PRT

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<220>

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<400> 1002

Gly	Ser	Asn	Phe	Thr	Ser	Thr	Thr	Val	Lys	Ala	Ala	Cys	Trp	Trp
1				5					10					15

<210> 1003

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 210

<400> 1003

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1				5					10					15

<210> 1004

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<220>

<223> HIV-1 pol peptide 211

<400> 1004

Val	Lys	Ala	Ala	Cys	Trp	Trp	Ala	Gly	Ile	Lys	Gln	Glu	Phe	Gly
1				5					10					15

<210> 1005

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<220>

<223> HIV-1 pol peptide 212

<400> 1005

Cys	Trp	Trp	Ala	Gly	Ile	Lys	Gln	Glu	Phe	Gly	Ile	Pro	Tyr	Asn
1				5					10					15

<210> 1006

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<212> PRT

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<220>

<223> HIV-1 pol peptide 213

<400> 1006

Gly Ile Lys Gln Glu Phe Gly Ile Pro Tyr Asn Pro Gln Ser Gln
1 5 10 15

<210> 1007

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 214

<400> 1007

Glu Phe Gly Ile Pro Tyr Asn Pro Gln Ser Gln Gly Val Val Glu
1 5 10 15

<210> 1008

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 215

<400> 1008

Pro Tyr Asn Pro Gln Ser Gln Gly Val Val Glu Ser Met Asn Lys
1 5 10 15

<210> 1009

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 216

<400> 1009

Gln Ser Gln Gly Val Val Glu Ser Met Asn Lys Glu Leu Lys Lys
1 5 10 15

<210> 1010

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 pol peptide 217

<400> 1010

Val	Val	Glu	Ser	Met	Asn	Lys	Glu	Leu	Lys	Lys	Ile	Ile	Gly	Gln
1				5					10					15

<210> 1011

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 218

<400> 1011

Met	Asn	Lys	Glu	Leu	Lys	Lys	Ile	Ile	Gly	Gln	Val	Arg	Asp	Gln
1				5					10					15

<210> 1012

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 219

<400> 1012

Leu	Lys	Lys	Ile	Ile	Gly	Gln	Val	Arg	Asp	Gln	Ala	Glu	His	Leu
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<212> PRT

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<223> HIV-1 pol peptide 220

<400> 1013

Ile	Gly	Gln	Val	Arg	Asp	Gln	Ala	Glu	His	Leu	Lys	Thr	Ala	Val
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<210> 1014

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<223> HIV-1 pol peptide 221

<400> 1014

Arg	Asp	Gln	Ala	Glu	His	Leu	Lys	Thr	Ala	Val	Gln	Met	Ala	Val
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<211> 15

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<220>

<223> HIV-1 pol peptide 222

<400> 1015

Glu	His	Leu	Lys	Thr	Ala	Val	Gln	Met	Ala	Val	Phe	Ile	His	Asn
1				5					10					15

<210> 1016

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 223

<400> 1016

Thr	Ala	Val	Gln	Met	Ala	Val	Phe	Ile	His	Asn	Phe	Lys	Arg	Lys
1				5					10					15

<210> 1017

<211> 15

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<220>

<223> HIV-1 pol peptide 224

<400> 1017

Met	Ala	Val	Phe	Ile	His	Asn	Phe	Lys	Arg	Lys	Gly	Gly	Ile	Gly
1				5					10					15

<210> 1018

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 225

<400> 1018

Ile	His	Asn	Phe	Lys	Arg	Lys	Gly	Gly	Ile	Gly	Gly	Tyr	Ser	Ala
1				5					10					15

<210> 1019
<211> 15
<212> PRT
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<220>
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<400> 1019

Lys Arg Lys Gly Gly Ile Gly Gly Tyr Ser Ala Gly Glu Arg Ile
1 5 10 15

<210> 1020
<211> 15
<212> PRT
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<220>
<223> HIV-1 pol peptide 227

<400> 1020

Gly Ile Gly Gly Tyr Ser Ala Gly Glu Arg Ile Val Asp Ile Ile
1 5 10 15

<210> 1021
<211> 15
<212> PRT
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<220>
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<400> 1021

Tyr Ser Ala Gly Glu Arg Ile Val Asp Ile Ile Ala Thr Asp Ile
1 5 10 15

<210> 1022
<211> 15
<212> PRT
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<220>
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<400> 1022

Glu Arg Ile Val Asp Ile Ile Ala Thr Asp Ile Gln Thr Lys Glu
1 5 10 15

<210> 1023
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<220>

<223> HIV-1 pol peptide 230

<400> 1023

Asp Ile Ile Ala Thr Asp Ile Gln Thr Lys Glu Leu Gln Lys Gln
1 5 10 15

<210> 1024

<211> 15

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<220>

<223> HIV-1 pol peptide 231

<400> 1024

Thr Asp Ile Gln Thr Lys Glu Leu Gln Lys Gln Ile Thr Lys Ile
1 5 10 15

<210> 1025

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 232

<400> 1025

Thr Lys Glu Leu Gln Lys Gln Ile Thr Lys Ile Gln Asn Phe Arg
1 5 10 15

<210> 1026

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 233

<400> 1026

Gln Lys Gln Ile Thr Lys Ile Gln Asn Phe Arg Val Tyr Arg Asp
1 5 10 15

<210> 1027

<211> 15

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<220>

<223> HIV-1 pol peptide 234

<400> 1027

Thr Lys Ile Gln Asn Phe Arg Val Tyr Arg Asp Ser Arg Asp Pro
 1 5 10 15

<210> 1028
 <211> 15
 <212> PRT
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<220>
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<400> 1028

Asn Phe Arg Val Tyr Arg Asp Ser Arg Asp Pro Leu Trp Lys Gly
 1 5 10 15

<210> 1029
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<220>
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<400> 1029

Tyr Arg Asp Ser Arg Asp Pro Leu Trp Lys Gly Pro Ala Lys Leu
 1 5 10 15

<210> 1030
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<220>
 <223> HIV-1 pol peptide 237

<400> 1030

Arg Asp Pro Leu Trp Lys Gly Pro Ala Lys Leu Leu Trp Lys Gly
 1 5 10 15

<210> 1031
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 pol peptide 238

<400> 1031

Trp Lys Gly Pro Ala Lys Leu Leu Trp Lys Gly Glu Gly Ala Val
 1 5 10 15

<210> 1032
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<220>
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<400> 1032

Ala	Lys	Leu	Leu	Trp	Lys	Gly	Glu	Gly	Ala	Val	Val	Ile	Gln	Asp
1				5					10					15

<210> 1033
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<220>
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<400> 1033

Trp	Lys	Gly	Glu	Gly	Ala	Val	Val	Ile	Gln	Asp	Asn	Ser	Asp	Ile
1				5					10					15

<210> 1034
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<400> 1034

Gly	Ala	Val	Val	Ile	Gln	Asp	Asn	Ser	Asp	Ile	Lys	Val	Val	Pro
1				5					10					15

<210> 1035
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<220>
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<400> 1035

Ile	Gln	Asp	Asn	Ser	Asp	Ile	Lys	Val	Val	Pro	Arg	Arg	Lys	Ala
1				5					10					15

<210> 1036
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<220>

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<400> 1036

Ser	Asp	Ile	Lys	Val	Val	Pro	Arg	Arg	Lys	Ala	Lys	Ile	Ile	Arg
1				5					10					15

<210> 1037

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<220>

<223> HIV-1 pol peptide 244

<400> 1037

Val	Val	Pro	Arg	Arg	Lys	Ala	Lys	Ile	Ile	Arg	Asp	Tyr	Gly	Lys
1				5				10						15

<210> 1038

<211> 15

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<220>

<223> HIV-1 pol peptide 245

<400> 1038

Arg	Lys	Ala	Lys	Ile	Ile	Arg	Asp	Tyr	Gly	Lys	Gln	Met	Ala	Gly
1				5					10					15

<210> 1039

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<212> PRT

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<220>

<223> HIV-1 pol peptide 246

<400> 1039

Ile	Ile	Arg	Asp	Tyr	Gly	Lys	Gln	Met	Ala	Gly	Asp	Asp	Cys	Val
1				5					10					15

<210> 1040

<211> 15

<212> PRT

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<220>

<223> HIV-1 pol peptide 247

<400> 1040

Tyr Gly Lys Gln Met Ala Gly Asp Asp Cys Val Ala Ser Arg Gln
 1 5 10 15

<210> 1041
 <211> 14
 <212> PRT
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<220>
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<400> 1041

Met Ala Gly Asp Asp Cys Val Ala Ser Arg Gln Asp Glu Asp
 1 5 10

<210> 1042
 <211> 16
 <212> PRT
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<220>
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<400> 1042

Met Ala Gly Arg Ser Gly Asp Ser Asp Glu Glu Leu Leu Lys Thr Leu
 1 5 10 15

<210> 1043
 <211> 16
 <212> PRT
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<220>
 <223> HIV-1 rev peptide 2

<400> 1043

Ser Gly Asp Ser Asp Glu Glu Leu Leu Lys Thr Val Arg Leu Ile Cys
 1 5 10 15

<210> 1044
 <211> 16
 <212> PRT
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<220>
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<400> 1044

Asp Glu Glu Leu Leu Lys Thr Val Arg Leu Ile Lys Phe Leu Tyr Cys
 1 5 10 15

<210> 1045

<211> 16
 <212> PRT
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<220>
 <223> HIV-1 rev peptide 4

<400> 1045

Leu Lys Thr Val Arg Leu Ile Lys Phe Leu Tyr Gln Ser Asn Pro Gly
 1 5 10 15

<210> 1046
 <211> 16
 <212> PRT
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<220>
 <223> HIV-1 rev peptide 5

<400> 1046

Arg Leu Ile Lys Phe Leu Tyr Gln Ser Asn Pro Pro Pro Ser Pro Val
 1 5 10 15

<210> 1047
 <211> 16
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 rev peptide 6

<400> 1047

Phe Leu Tyr Gln Ser Asn Pro Pro Pro Ser Pro Glu Gly Thr Arg Gln
 1 5 10 15

<210> 1048
 <211> 16
 <212> PRT
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<220>
 <223> HIV-1 rev peptide 7

<400> 1048

Ser Asn Pro Pro Pro Ser Pro Glu Gly Thr Arg Gln Ala Arg Arg Glu
 1 5 10 15

<210> 1049
 <211> 15
 <212> PRT
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<220>

<223> HIV-1 rev peptide 8

<400> 1049

Pro Ser Pro Glu Gly Thr Arg Gln Ala Arg Arg Asn Arg Arg Arg
1 5 10 15

<210> 1050

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 rev peptide 9

<400> 1050

Gly Thr Arg Gln Ala Arg Arg Asn Arg Arg Arg Arg Trp Arg Glu
1 5 10 15

<210> 1051

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 rev peptide 10

<400> 1051

Ala Arg Arg Asn Arg Arg Arg Arg Trp Arg Glu Arg Gln Arg Gln
1 5 10 15

<210> 1052

<211> 15

<212> PRT

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<220>

<223> HIV-1 rev peptide 11

<400> 1052

Arg Arg Arg Arg Trp Arg Glu Arg Gln Arg Gln Ile Arg Ser Ile
1 5 10 15

<210> 1053

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 rev peptide 12

<400> 1053

Trp Arg Glu Arg Gln Arg Gln Ile Arg Ser Ile Ser Glu Trp Ile

1 5 10 15

<210> 1054
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<220>
<223> HIV-1 rev peptide 13

<400> 1054

Gln Arg Gln Ile Arg Ser Ile Ser Glu Trp Ile Leu Ser Thr Tyr
1 5 10 15

<210> 1055
<211> 15
<212> PRT
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<220>
<223> HIV-1 rev peptide 14

<400> 1055

Arg Ser Ile Ser Glu Trp Ile Leu Ser Thr Tyr Leu Gly Arg Pro
1 5 10 15

<210> 1056
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<212> PRT
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<220>
<223> HIV-1 rev peptide 15

<400> 1056

Glu Trp Ile Leu Ser Thr Tyr Leu Gly Arg Pro Ala Glu Pro Val
1 5 10 15

<210> 1057
<211> 15
<212> PRT
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<220>
<223> HIV-1 rev peptide 16

<400> 1057

Ser Thr Tyr Leu Gly Arg Pro Ala Glu Pro Val Pro Leu Gln Leu
1 5 10 15

<210> 1058
<211> 15

<212> PRT
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<220>
<223> HIV-1 rev peptide 17

<400> 1058

Gly Arg Pro Ala Glu Pro Val Pro Leu Gln Leu Pro Pro Leu Glu
1 5 10 15

<210> 1059
<211> 15
<212> PRT
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<220>
<223> HIV-1 rev peptide 18

<400> 1059

Glu Pro Val Pro Leu Gln Leu Pro Pro Leu Glu Arg Leu Thr Leu
1 5 10 15

<210> 1060
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 rev peptide 19

<400> 1060

Leu Gln Leu Pro Pro Leu Glu Arg Leu Thr Leu Asp Cys Asn Glu
1 5 10 15

<210> 1061
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 rev peptide 20

<400> 1061

Pro Leu Glu Arg Leu Thr Leu Asp Cys Asn Glu Asp Cys Gly Thr
1 5 10 15

<210> 1062
<211> 14
<212> PRT
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<220>
<223> HIV-1 rev peptide 21

<400> 1062

Thr Leu Asp Cys Asn Glu Asp Cys Gly Thr Ser Gly Thr Gln
1 5 10

<210> 1063

<211> 14

<212> PRT

<213> Artificial

<220>

<223> HIV-1 rev peptide 22

<400> 1063

Asn Glu Asp Cys Gly Thr Ser Gly Thr Gln Gly Val Gly Ser
1 5 10

<210> 1064

<211> 14

<212> PRT

<213> Artificial

<220>

<223> HIV-1 rev peptide 23

<400> 1064

Gly Thr Ser Gly Thr Gln Gly Val Gly Ser Pro Gln Ile Leu
1 5 10

<210> 1065

<211> 14

<212> PRT

<213> Artificial

<220>

<223> HIV-1 rev peptide 24

<400> 1065

Thr Gln Gly Val Gly Ser Pro Gln Ile Leu Val Glu Ser Pro
1 5 10

<210> 1066

<211> 14

<212> PRT

<213> Artificial

<220>

<223> HIV-1 rev peptide 25

<400> 1066

Gly Ser Pro Gln Ile Leu Val Glu Ser Pro Ala Val Leu Glu
1 5 10

<210> 1067
<211> 14
<212> PRT
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<220>
<223> HIV-1 rev peptide 26

<400> 1067

Ile Leu Val Glu Ser Pro Ala Val Leu Glu Ser Gly Thr Lys
1 5 10

<210> 1068
<211> 12
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<220>
<223> HIV-1 rev peptide 27

<400> 1068

Ser Pro Ala Val Leu Glu Ser Gly Thr Lys Glu Glu
1 5 10

<210> 1069
<211> 16
<212> PRT
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<220>
<223> HIV-1 tat peptide 1

<400> 1069

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Pro
1 5 10 15

<210> 1070
<211> 16
<212> PRT
<213> Artificial

<220>
<223> HIV-1 tat peptide 2

<400> 1070

Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser Gln Pro Lys Pro
1 5 10 15

<210> 1071
<211> 16
<212> PRT

<213> Artificial

<220>

<223> HIV-1 tat peptide 3

<400> 1071

Glu	Pro	Trp	Lys	His	Pro	Gly	Ser	Gln	Pro	Lys	Thr	Ala	Cys	Thr	Lys
1				5					10					15	

<210> 1072

<211> 16

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<213> Artificial

<220>

<223> HIV-1 tat peptide 4

<400> 1072

His	Pro	Gly	Ser	Gln	Pro	Lys	Thr	Ala	Cys	Thr	Asn	Cys	Tyr	Cys	Lys
1				5					10					15	

<210> 1073

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 tat peptide 5

<400> 1073

Gln	Pro	Lys	Thr	Ala	Cys	Thr	Asn	Cys	Tyr	Cys	Lys	Lys	Cys	Cys
1				5					10					15

<210> 1074

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 tat peptide 6

<400> 1074

Ala	Cys	Thr	Asn	Cys	Tyr	Cys	Lys	Lys	Cys	Cys	Phe	His	Cys	Gln
1				5					10					15

<210> 1075

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<212> PRT

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<220>

<223> HIV-1 tat peptide 7

<400> 1075

Cys	Tyr	Cys	Lys	Lys	Cys	Cys	Phe	His	Cys	Gln	Val	Cys	Phe	Ile
1				5					10					15

<210> 1076

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<220>

<223> HIV-1 tat peptide 8

<400> 1076

Lys	Cys	Cys	Phe	His	Cys	Gln	Val	Cys	Phe	Ile	Thr	Lys	Gly	Leu
1				5					10					15

<210> 1077

<211> 15

<212> PRT

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<220>

<223> HIV-1 tat peptide 9

<400> 1077

His	Cys	Gln	Val	Cys	Phe	Ile	Thr	Lys	Gly	Leu	Gly	Ile	Ser	Tyr
1				5					10					15

<210> 1078

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<212> PRT

<213> Artificial

<220>

<223> HIV-1 tat peptide 10

<400> 1078

Cys	Phe	Ile	Thr	Lys	Gly	Leu	Gly	Ile	Ser	Tyr	Gly	Arg	Lys	Lys
1				5					10					15

<210> 1079

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 tat peptide 11

<400> 1079

Lys	Gly	Leu	Gly	Ile	Ser	Tyr	Gly	Arg	Lys	Lys	Arg	Arg	Gln	Arg
1				5					10					15

<210> 1080
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 tat peptide 12

<400> 1080

Ile Ser Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Pro
 1 5 10 15

<210> 1081
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 tat peptide 13

<400> 1081

Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Pro Gln Asp Ser Gln
 1 5 10 15

<210> 1082
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 tat peptide 14

<400> 1082

Arg Gln Arg Arg Arg Ala Pro Gln Asp Ser Gln Thr His Gln Val
 1 5 10 15

<210> 1083
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 tat peptide 15

<400> 1083

Arg Ala Pro Gln Asp Ser Gln Thr His Gln Val Ser Leu Ser Lys
 1 5 10 15

<210> 1084
 <211> 15
 <212> PRT
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<220>

<223> HIV-1 tat peptide 16

<400> 1084

Asp	Ser	Gln	Thr	His	Gln	Val	Ser	Leu	Ser	Lys	Gln	Pro	Ala	Ser
1				5					10					15

<210> 1085

<211> 15

<212> PRT

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<220>

<223> HIV-1 tat peptide 17

<400> 1085

His	Gln	Val	Ser	Leu	Ser	Lys	Gln	Pro	Ala	Ser	Gln	Pro	Arg	Gly
1				5					10					15

<210> 1086

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<212> PRT

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<220>

<223> HIV-1 tat peptide 18

<400> 1086

Leu	Ser	Lys	Gln	Pro	Ala	Ser	Gln	Pro	Arg	Gly	Asp	Pro	Thr	Gly
1				5					10					15

<210> 1087

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 tat peptide 19

<400> 1087

Pro	Ala	Ser	Gln	Pro	Arg	Gly	Asp	Pro	Thr	Gly	Pro	Lys	Glu	Ser
1				5					10					15

<210> 1088

<211> 14

<212> PRT

<213> Artificial

<220>

<223> HIV-1 tat peptide 20

<400> 1088

Arg Gly Asp Pro Thr Gly Pro Lys Glu Ser Lys Lys Lys Val
 1 5 10

<210> 1089
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 <212> PRT
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<220>
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<400> 1089

Thr Gly Pro Lys Glu Ser Lys Lys Lys Val Glu Arg Glu Thr
 1 5 10

<210> 1090
 <211> 14
 <212> PRT
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<220>
 <223> HIV-1 tat peptide 22

<400> 1090

Glu Ser Lys Lys Lys Val Glu Arg Glu Thr Glu Thr Asp Pro
 1 5 10

<210> 1091
 <211> 13
 <212> PRT
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<220>
 <223> HIV-1 tat peptide 23

<400> 1091

Lys Val Glu Arg Glu Thr Glu Thr Asp Pro Val Asp Gln
 1 5 10

<210> 1092
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 vif peptide 1

<400> 1092

Met Glu Asn Arg Trp Gln Val Met Ile Val Trp Gln Val Asp Arg
 1 5 10 15

<210> 1093
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<212> PRT
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<220>
<223> HIV-1 vif peptide 2

<400> 1093

Trp	Gln	Val	Met	Ile	Val	Trp	Gln	Val	Asp	Arg	Met	Arg	Ile	Arg
1				5					10				15	

<210> 1094
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<212> PRT
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<220>
<223> HIV-1 vif peptide 3

<400> 1094

Ile	Val	Trp	Gln	Val	Asp	Arg	Met	Arg	Ile	Arg	Thr	Trp	Lys	Ser
1				5					10				15	

<210> 1095
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<212> PRT
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<220>
<223> HIV-1 vif peptide 4

<400> 1095

Val	Asp	Arg	Met	Arg	Ile	Arg	Thr	Trp	Lys	Ser	Leu	Val	Lys	His
1				5					10				15	

<210> 1096
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<212> PRT
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<220>
<223> HIV-1 vif peptide 5

<400> 1096

Arg	Ile	Arg	Thr	Trp	Lys	Ser	Leu	Val	Lys	His	His	Met	Tyr	Ile
1				5					10				15	

<210> 1097
<211> 15
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<220>

<223> HIV-1 vif peptide 6

<400> 1097

Trp	Lys	Ser	Leu	Val	Lys	His	His	Met	Tyr	Ile	Ser	Arg	Lys	Ala
1				5					10					15

<210> 1098

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 7

<400> 1098

Val	Lys	His	His	Met	Tyr	Ile	Ser	Arg	Lys	Ala	Lys	Gly	Trp	Phe
1				5					10					15

<210> 1099

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 8

<400> 1099

Met	Tyr	Ile	Ser	Arg	Lys	Ala	Lys	Gly	Trp	Phe	Tyr	Arg	His	His
1				5					10					15

<210> 1100

<211> 15

<212> PRT

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<220>

<223> HIV-1 vif peptide 9

<400> 1100

Arg	Lys	Ala	Lys	Gly	Trp	Phe	Tyr	Arg	His	His	Tyr	Glu	Ser	Thr
1				5					10					15

<210> 1101

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 10

<400> 1101

Gly Trp Phe Tyr Arg His His Tyr Glu Ser Thr His Pro Arg Ile
1 5 10 15

<210> 1102
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 11

<400> 1102

Arg His His Tyr Glu Ser Thr His Pro Arg Ile Ser Ser Glu Val
1 5 10 15

<210> 1103
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 12

<400> 1103

Glu Ser Thr His Pro Arg Ile Ser Ser Glu Val His Ile Pro Leu
1 5 10 15

<210> 1104
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 13

<400> 1104

Pro Arg Ile Ser Ser Glu Val His Ile Pro Leu Gly Asp Ala Arg
1 5 10 15

<210> 1105
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 14

<400> 1105

Ser Glu Val His Ile Pro Leu Gly Asp Ala Arg Leu Val Ile Thr
1 5 10 15

<210> 1106

<211> 15
 <212> PRT
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<220>
 <223> HIV-1 vif peptide 15

<400> 1106

Ile	Pro	Leu	Gly	Asp	Ala	Arg	Leu	Val	Ile	Thr	Thr	Tyr	Trp	Gly
1				5					10					15

<210> 1107
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vif peptide 16

<400> 1107

Asp	Ala	Arg	Leu	Val	Ile	Thr	Thr	Tyr	Trp	Gly	Leu	His	Thr	Gly
1				5					10					15

<210> 1108
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 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vif peptide 17

<400> 1108

Val	Ile	Thr	Thr	Tyr	Trp	Gly	Leu	His	Thr	Gly	Glu	Arg	Asp	Trp
1				5					10					15

<210> 1109
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 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vif peptide 18

<400> 1109

Tyr	Trp	Gly	Leu	His	Thr	Gly	Glu	Arg	Asp	Trp	His	Leu	Gly	Gln
1				5					10					15

<210> 1110
 <211> 15
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<220>

<223> HIV-1 vif peptide 19

<400> 1110

His	Thr	Gly	Glu	Arg	Asp	Trp	His	Leu	Gly	Gln	Gly	Val	Ser	Ile
1				5					10					15

<210> 1111

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 20

<400> 1111

Arg	Asp	Trp	His	Leu	Gly	Gln	Gly	Val	Ser	Ile	Glu	Trp	Arg	Lys
1				5					10					15

<210> 1112

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 21

<400> 1112

Leu	Gly	Gln	Gly	Val	Ser	Ile	Glu	Trp	Arg	Lys	Lys	Arg	Tyr	Ser
1				5					10					15

<210> 1113

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 22

<400> 1113

Val	Ser	Ile	Glu	Trp	Arg	Lys	Lys	Arg	Tyr	Ser	Thr	Gln	Val	Asp
1				5					10					15

<210> 1114

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 23

<400> 1114

Trp Arg Lys Lys Arg Tyr Ser Thr Gln Val Asp Pro Asp Leu Ala

1 5 10 15

<210> 1115
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 24

<400> 1115

Arg Tyr Ser Thr Gln Val Asp Pro Asp Leu Ala Asp Gln Leu Ile
1 5 10 15

<210> 1116
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 25

<400> 1116

Gln Val Asp Pro Asp Leu Ala Asp Gln Leu Ile His Leu Tyr Tyr
1 5 10 15

<210> 1117
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 26

<400> 1117

Asp Leu Ala Asp Gln Leu Ile His Leu Tyr Tyr Phe Asp Cys Phe
1 5 10 15

<210> 1118
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 27

<400> 1118

Gln Leu Ile His Leu Tyr Tyr Phe Asp Cys Phe Ser Glu Ser Ala
1 5 10 15

<210> 1119
<211> 15

<212> PRT
<213> Artificial

<220>
<223> HIV-1 vif peptide 28

<400> 1119

Leu	Tyr	Tyr	Phe	Asp	Cys	Phe	Ser	Glu	Ser	Ala	Ile	Arg	Asn	Ala
1				5					10					15

<210> 1120
<211> 15
<212> PRT
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<220>
<223> HIV-1 vif peptide 29

<400> 1120

Asp	Cys	Phe	Ser	Glu	Ser	Ala	Ile	Arg	Asn	Ala	Ile	Leu	Gly	His
1				5					10					15

<210> 1121
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<220>
<223> HIV-1 vif peptide 30

<400> 1121

Glu	Ser	Ala	Ile	Arg	Asn	Ala	Ile	Leu	Gly	His	Ile	Val	Ser	Pro
1				5					10					15

<210> 1122
<211> 15
<212> PRT
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<220>
<223> HIV-1 vif peptide 31

<400> 1122

Arg	Asn	Ala	Ile	Leu	Gly	His	Ile	Val	Ser	Pro	Arg	Cys	Glu	Tyr
1				5					10					15

<210> 1123
<211> 15
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<220>
<223> HIV-1 vif peptide 32

<400> 1123

Leu Gly His Ile Val Ser Pro Arg Cys Glu Tyr Gln Ala Gly His
 1 5 10 15

<210> 1124

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 33

<400> 1124

Val Ser Pro Arg Cys Glu Tyr Gln Ala Gly His Asn Lys Val Gly
 1 5 10 15

<210> 1125

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 34

<400> 1125

Cys Glu Tyr Gln Ala Gly His Asn Lys Val Gly Ser Leu Gln Tyr
 1 5 10 15

<210> 1126

<211> 15

<212> PRT

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<220>

<223> HIV-1 vif peptide 35

<400> 1126

Ala Gly His Asn Lys Val Gly Ser Leu Gln Tyr Leu Ala Leu Ala
 1 5 10 15

<210> 1127

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 36

<400> 1127

Lys Val Gly Ser Leu Gln Tyr Leu Ala Leu Ala Ala Leu Ile Thr
 1 5 10 15

<210> 1128
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 <212> PRT
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<220>
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<400> 1128

Leu Gln Tyr Leu Ala Leu Ala Ala Leu Ile Thr Pro Lys Lys Ile
 1 5 10 15

<210> 1129
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 vif peptide 38

<400> 1129

Ala Leu Ala Ala Leu Ile Thr Pro Lys Lys Ile Lys Pro Pro Leu
 1 5 10 15

<210> 1130
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vif peptide 39

<400> 1130

Leu Ile Thr Pro Lys Lys Ile Lys Pro Pro Leu Pro Ser Val Thr
 1 5 10 15

<210> 1131
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vif peptide 40

<400> 1131

Lys Lys Ile Lys Pro Pro Leu Pro Ser Val Thr Lys Leu Thr Glu
 1 5 10 15

<210> 1132
 <211> 16
 <212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 41

<400> 1132

Pro	Pro	Leu	Pro	Ser	Val	Thr	Lys	Leu	Thr	Glu	Asp	Arg	Trp	Asn	Lys
1				5					10					15	

<210> 1133

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 42

<400> 1133

Pro	Pro	Leu	Pro	Ser	Val	Thr	Lys	Leu	Thr	Glu	Asp	Arg	Trp	Asn	Lys
1				5					10					15	

<210> 1134

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 43

<400> 1134

Ser	Val	Thr	Lys	Leu	Thr	Glu	Asp	Arg	Trp	Asn	Lys	Pro	Gln	Lys
1				5					10					15

<210> 1135

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 44

<400> 1135

Leu	Thr	Glu	Asp	Arg	Trp	Asn	Lys	Pro	Gln	Lys	Thr	Lys	Gly	His
1				5					10					15

<210> 1136

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 45

<400> 1136

Arg	Trp	Asn	Lys	Pro	Gln	Lys	Thr	Lys	Gly	His	Arg	Gly	Ser	His
1				5					10					15

<210> 1137

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 46

<400> 1137

Pro	Gln	Lys	Thr	Lys	Gly	His	Arg	Gly	Ser	His	Thr	Met	Asn	Gly
1				5					10					15

<210> 1138

<211> 12

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 47

<400> 1138

Lys	Gly	His	Arg	Gly	Ser	His	Thr	Met	Asn	Gly	His
1				5					10		

<210> 1139

<211> 16

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vif peptide 48

<400> 1139

Pro	Gln	Lys	Thr	Lys	Gly	His	Arg	Gly	Ser	His	Thr	Met	Asn	Gly	His
1				5					10					15	

<210> 1140

<211> 16

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpr peptide 1

<400> 1140

Met	Glu	Gln	Ala	Pro	Glu	Asp	Gln	Gly	Pro	Gln	Arg	Glu	Pro	Tyr	Ile
1				5					10					15	

<210> 1141
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 <212> PRT
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<220>
 <223> HIV-1 vpr peptide 2

<400> 1141

Pro	Glu	Asp	Gln	Gly	Pro	Gln	Arg	Glu	Pro	Tyr	Asn	Glu	Trp	Thr	Arg
1				5					10					15	

<210> 1142
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 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpr peptide 3

<400> 1142

Gly	Pro	Gln	Arg	Glu	Pro	Tyr	Asn	Glu	Trp	Thr	Leu	Glu	Leu	Leu
1				5					10				15	

<210> 1143
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 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpr peptide 4

<400> 1143

Glu	Pro	Tyr	Asn	Glu	Trp	Thr	Leu	Glu	Leu	Leu	Glu	Glu	Leu	Lys
1				5					10				15	

<210> 1144
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpr peptide 5

<400> 1144

Glu	Trp	Thr	Leu	Glu	Leu	Leu	Glu	Glu	Leu	Lys	Ser	Glu	Ala	Val
1				5					10				15	

<210> 1145
 <211> 15
 <212> PRT
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<220>

<223> HIV-1 vpr peptide 6

<400> 1145

Glu Leu Leu Glu Glu Leu Lys Ser Glu Ala Val Arg His Phe Pro
1 5 10 15

<210> 1146

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpr peptide 7

<400> 1146

Glu Leu Lys Ser Glu Ala Val Arg His Phe Pro Arg Ile Trp Leu
1 5 10 15

<210> 1147

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpr peptide 8

<400> 1147

Glu Ala Val Arg His Phe Pro Arg Ile Trp Leu His Gly Leu Gly
1 5 10 15

<210> 1148

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpr peptide 9

<400> 1148

His Phe Pro Arg Ile Trp Leu His Gly Leu Gly Gln His Ile Tyr
1 5 10 15

<210> 1149

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpr peptide 10

<400> 1149

Ile Trp Leu His Gly Leu Gly Gln His Ile Tyr Glu Thr Tyr Gly
 1 5 10 15

<210> 1150
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 vpr peptide 11

<400> 1150

Gly Leu Gly Gln His Ile Tyr Glu Thr Tyr Gly Asp Thr Trp Ala
 1 5 10 15

<210> 1151
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpr peptide 12

<400> 1151

His Ile Tyr Glu Thr Tyr Gly Asp Thr Trp Ala Gly Val Glu Ala
 1 5 10 15

<210> 1152
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpr peptide 13

<400> 1152

Thr Tyr Gly Asp Thr Trp Ala Gly Val Glu Ala Ile Ile Arg Ile
 1 5 10 15

<210> 1153
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpr peptide 14

<400> 1153

Thr Trp Ala Gly Val Glu Ala Ile Ile Arg Ile Leu Gln Gln Leu
 1 5 10 15

<210> 1154
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vpr peptide 15

<400> 1154

Val Glu Ala Ile Ile Arg Ile Leu Gln Gln Leu Leu Phe Ile His
1 5 10 15

<210> 1155
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vpr peptide 16

<400> 1155

Ile Arg Ile Leu Gln Gln Leu Leu Phe Ile His Phe Arg Ile Gly
1 5 10 15

<210> 1156
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vpr peptide 17

<400> 1156

Gln Gln Leu Leu Phe Ile His Phe Arg Ile Gly Cys Gln His Ser
1 5 10 15

<210> 1157
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vpr peptide 18

<400> 1157

Phe Ile His Phe Arg Ile Gly Cys Gln His Ser Arg Ile Gly Ile
1 5 10 15

<210> 1158
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<212> PRT
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<220>

<223> HIV-1 vpr peptide 19

<400> 1158

Arg Ile Gly Cys Gln His Ser Arg Ile Gly Ile Thr Arg Gln Arg
 1 5 10 15

<210> 1159

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpr peptide 20

<400> 1159

Gln His Ser Arg Ile Gly Ile Thr Arg Gln Arg Arg Ala Arg Asn
 1 5 10 15

<210> 1160

<211> 14

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpr peptide 21

<400> 1160

Gly Ile Thr Arg Gln Arg Arg Ala Arg Asn Gly Ala Ser Arg
 1 5 10

<210> 1161

<211> 11

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpr peptide 22

<400> 1161

Gln Arg Arg Ala Arg Asn Gly Ala Ser Arg Ser
 1 5 10

<210> 1162

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpu peptide 1

<400> 1162

Met Gln Ser Leu Gln Ile Leu Ala Ile Val Ala Leu Val Val Ala
 1 5 10 15

<210> 1163
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpu peptide 2

<400> 1163

Gln Ile Leu Ala Ile Val Ala Leu Val Val Ala Ala Ile Ile Ala
 1 5 10 15

<210> 1164
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 vpu peptide 3

<400> 1164

Ile Val Ala Leu Val Val Ala Ala Ile Ile Ala Ile Val Val Trp
 1 5 10 15

<210> 1165
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpu peptide 4

<400> 1165

Val Val Ala Ala Ile Ile Ala Ile Val Val Trp Ser Ile Val Phe
 1 5 10 15

<210> 1166
 <211> 15
 <212> PRT
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<220>
 <223> HIV-1 vpu peptide 5

<400> 1166

Ile Ile Ala Ile Val Val Trp Ser Ile Val Phe Ile Glu Tyr Arg
 1 5 10 15

<210> 1167

<211> 15
<212> PRT
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<220>
<223> HIV-1 vpu peptide 6

<400> 1167

Val Val Trp Ser Ile Val Phe Ile Glu Tyr Arg Lys Ile Leu Arg
1 5 10 15

<210> 1168
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vpu peptide 7

<400> 1168

Ile Val Phe Ile Glu Tyr Arg Lys Ile Leu Arg Gln Arg Lys Ile
1 5 10 15

<210> 1169
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vpu peptide 8

<400> 1169

Glu Tyr Arg Lys Ile Leu Arg Gln Arg Lys Ile Asp Arg Leu Ile
1 5 10 15

<210> 1170
<211> 15
<212> PRT
<213> Artificial

<220>
<223> HIV-1 vpu peptide 9

<400> 1170

Ile Leu Arg Gln Arg Lys Ile Asp Arg Leu Ile Asp Arg Ile Arg
1 5 10 15

<210> 1171
<211> 15
<212> PRT
<213> Artificial

<220>

<223> HIV-1 vpu peptide 10

<400> 1171

Arg Lys Ile Asp Arg Leu Ile Asp Arg Ile Arg Glu Arg Ala Glu
1 5 10 15

<210> 1172

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpu peptide 11

<400> 1172

Arg Leu Ile Asp Arg Ile Arg Glu Arg Ala Glu Asp Ser Gly Asn
1 5 10 15

<210> 1173

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpu peptide 12

<400> 1173

Arg Ile Arg Glu Arg Ala Glu Asp Ser Gly Asn Glu Ser Glu Gly
1 5 10 15

<210> 1174

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpu peptide 13

<400> 1174

Arg Ala Glu Asp Ser Gly Asn Glu Ser Glu Gly Asp Gln Glu Glu
1 5 10 15

<210> 1175

<211> 15

<212> PRT

<213> Artificial

<220>

<223> HIV-1 vpu peptide 14

<400> 1175

Ser Gly Asn Glu Ser Glu Gly Asp Gln Glu Glu Leu Ser Ala Leu

1 5 10 15

<210> 1176
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 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpu peptide 15

<400> 1176

Ser Glu Gly Asp Gln Glu Glu Leu Ser Ala Leu Val Glu Met Gly
 1 5 10 15

<210> 1177
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpu peptide 16

<400> 1177

Gln Glu Glu Leu Ser Ala Leu Val Glu Met Gly His His Ala Pro
 1 5 10 15

<210> 1178
 <211> 15
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpu peptide 17

<400> 1178

Ser Ala Leu Val Glu Met Gly His His Ala Pro Trp Asp Val Asp
 1 5 10 15

<210> 1179
 <211> 13
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 vpu peptide 18

<400> 1179

Glu Met Gly His His Ala Pro Trp Asp Val Asp Asp Leu
 1 5 10

<210> 1180
 <211> 18

<212> PRT
 <213> Hepatitis C virus

<400> 1180

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
 1 5 10 15

Arg Arg

<210> 1181
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1181

Gln Arg Lys Thr Lys Arg Asn Thr Asn Arg Arg Pro Gln Asp Val Lys
 1 5 10 15

Phe Pro

<210> 1182
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1182

Thr Asn Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile
 1 5 10 15

Val Gly

<210> 1183
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1183

Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly Gly Val Tyr Leu Leu
 1 5 10 15

Pro Arg

<210> 1184
 <211> 18
 <212> PRT

<213> Hepatitis C virus

<400> 1184

Gln Ile Val Gly Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu
1 5 10 15

Gly Val

<210> 1185

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1185

Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala Thr Arg Lys
1 5 10 15

Thr Ser

<210> 1186

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1186

Arg Leu Gly Val Arg Ala Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro
1 5 10 15

Arg Gly

<210> 1187

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1187

Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro Ile
1 5 10 15

Pro Lys

<210> 1188

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1188

Gln Pro Arg Gly Arg Arg Gln Pro Ile Pro Lys Ala Arg Arg Pro Glu
1 5 10 15

Gly Arg

<210> 1189

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1189

Pro Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro
1 5 10 15

Gly Tyr

<210> 1190

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1190

Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly Tyr Pro Trp Pro Leu Tyr
1 5 10 15

Gly Asn

<210> 1191

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1191

Gln Pro Gly Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp
1 5 10 15

Ala Gly

<210> 1192

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1192

Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp Leu Leu Ser Pro
1 5 10 15

Arg Gly

<210> 1193

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1193

Gly Trp Ala Gly Trp Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp
1 5 10 15

Gly Pro

<210> 1194

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1194

Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro Arg Arg
1 5 10 15

Arg Ser

<210> 1195

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1195

Ser Trp Gly Pro Thr Asp Pro Arg Arg Arg Ser Arg Asn Leu Gly Lys
1 5 10 15

Val Ile

<210> 1196

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1196

Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
 1 5 10 15

Gly Phe

<210> 1197
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1197

Gly Lys Val Ile Asp Thr Leu Thr Cys Gly Phe Ala Asp Leu Met Gly
 1 5 10 15

Tyr Ile

<210> 1198
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1198

Thr Cys Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala
 1 5 10 15

Pro Leu

<210> 1199
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1199

Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu Gly Gly Ala Ala Arg
 1 5 10 15

Ala Leu

<210> 1200
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1200

Gly Ala Pro Leu Gly Gly Ala Ala Arg Ala Leu Ala His Gly Val Arg
 1 5 10 15

Val Leu

<210> 1201
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1201

Ala Arg Ala Leu Ala His Gly Val Arg Val Leu Glu Asp Gly Val Asn
 1 5 10 15

Tyr Ala

<210> 1202
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1202

Val Arg Val Leu Glu Asp Gly Val Asn Tyr Ala Thr Gly Asn Leu Pro
 1 5 10 15

Gly Cys

<210> 1203
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1203

Val Asn Tyr Ala Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile Phe
 1 5 10 15

Leu Leu

<210> 1204
 <211> 15
 <212> PRT
 <213> Hepatitis C virus

<400> 1204

Leu Pro Gly Cys Ser Phe Ser Ile Phe Leu Leu Ala Leu Leu Ser

278

<212> PRT
 <213> Hepatitis C virus

<400> 1209

Ser Ser Gly Leu Tyr His Val Thr Asn Asp Cys Pro Asn Ser Ser Ile
 1 5 10 15

Val Tyr

<210> 1210
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1210

Thr Asn Asp Cys Pro Asn Ser Ser Ile Val Tyr Glu Ala Ala Asp Ala
 1 5 10 15

Ile Leu

<210> 1211
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1211

Ser Ile Val Tyr Glu Ala Ala Asp Ala Ile Leu His Thr Pro Gly Cys
 1 5 10 15

Val Pro

<210> 1212
 <211> 18
 <212> PRT
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<400> 1212

Asp Ala Ile Leu His Thr Pro Gly Cys Val Pro Cys Val Arg Glu Gly
 1 5 10 15

Asn Ala

<210> 1213
 <211> 18
 <212> PRT

<213> Hepatitis C virus

<400> 1213

Gly Cys Val Pro Cys Val Arg Glu Gly Asn Ala Ser Arg Cys Trp Val
1 5 10 15

Ala Val

<210> 1214

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1214

Glu Gly Asn Ala Ser Arg Cys Trp Val Ala Val Thr Pro Thr Val Ala
1 5 10 15

Thr Arg

<210> 1215

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1215

Trp Val Ala Val Thr Pro Thr Val Ala Thr Arg Asp Gly Lys Leu Pro
1 5 10 15

Thr Thr

<210> 1216

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1216

Val Ala Thr Arg Asp Gly Lys Leu Pro Thr Thr Gln Leu Arg Arg His
1 5 10 15

Ile Asp

<210> 1217

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1217

Leu Pro Thr Thr Gln Leu Arg Arg His Ile Asp Leu Leu Val Gly Ser
1 5 10 15

Ala Thr

<210> 1218

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1218

Arg His Ile Asp Leu Leu Val Gly Ser Ala Thr Leu Cys Ser Ala Leu
1 5 10 15

Tyr Val

<210> 1219

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1219

Gly Ser Ala Thr Leu Cys Ser Ala Leu Tyr Val Gly Asp Leu Cys Gly
1 5 10 15

Ser Val

<210> 1220

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1220

Ala Leu Tyr Val Gly Asp Leu Cys Gly Ser Val Phe Leu Val Gly Gln
1 5 10 15

Leu Phe

<210> 1221

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1221

Cys Gly Ser Val Phe Leu Val Gly Gln Leu Phe Thr Phe Ser Pro Arg
 1 5 10 15

Arg His

<210> 1222

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1222

Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His Trp Thr Thr Gln Asp
 1 5 10 15

Cys Asn

<210> 1223

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1223

Pro Arg Arg His Trp Thr Thr Gln Asp Cys Asn Cys Ser Ile Tyr Pro
 1 5 10 15

Gly His

<210> 1224

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1224

Gln Asp Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr Gly His Arg
 1 5 10 15

Met Ala

<210> 1225

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1225

Tyr Pro Gly His Ile Thr Gly His Arg Met Ala Trp Asp Met Met Met
 1 5 10 15

Asn Trp

<210> 1226
 <211> 18
 <212> PRT
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<400> 1226

His Arg Met Ala Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala Ala
 1 5 10 15

Leu Val

<210> 1227
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1227

Met Met Asn Trp Ser Pro Thr Ala Ala Leu Val Val Ala Gln Leu Leu
 1 5 10 15

Arg Ile

<210> 1228
 <211> 18
 <212> PRT
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<400> 1228

Ala Ala Leu Val Val Ala Gln Leu Leu Arg Ile Pro Gln Ala Ile Met
 1 5 10 15

Asp Met

<210> 1229
 <211> 18
 <212> PRT
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<400> 1229

Leu Leu Arg Ile Pro Gln Ala Ile Met Asp Met Ile Ala Gly Ala His
 1 5 10 15

Trp Gly

<210> 1230
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<400> 1230

Ile Met Asp Met Ile Ala Gly Ala His Trp Gly Val Leu Ala Gly Ile
 1 5 10 15

Ala Tyr

<210> 1231
 <211> 18
 <212> PRT
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<400> 1231

Ala His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe Ser Met Val Gly
 1 5 10 15

Asn Trp

<210> 1232
 <211> 18
 <212> PRT
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<400> 1232

Gly Ile Ala Tyr Phe Ser Met Val Gly Asn Trp Ala Lys Val Leu Val
 1 5 10 15

Val Leu

<210> 1233
 <211> 18
 <212> PRT
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<400> 1233

Val Gly Asn Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe Ala Gly

Val Asp

<400> 1234

Thr Gly

<400> 1235

Thr Thr

<400> 1236

Leu Leu

.<400> 1237

285

Gln Asn

<210> 1238
 <211> 18
 <212> PRT
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<400> 1238

Val Gly Leu Leu Thr Pro Gly Ala Lys Gln Asn Ile Gln Leu Ile Asn
 1 5 10 15

Thr Asn

<210> 1239
 <211> 18
 <212> PRT
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<400> 1239

Ala Lys Gln Asn Ile Gln Leu Ile Asn Thr Asn Gly Ser Trp His Ile
 1 5 10 15

Asn Ser

<210> 1240
 <211> 18
 <212> PRT
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<400> 1240

Ile Asn Thr Asn Gly Ser Trp His Ile Asn Ser Thr Ala Leu Asn Cys
 1 5 10 15

Asn Glu

<210> 1241
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1241

His Ile Asn Ser Thr Ala Leu Asn Cys Asn Glu Ser Leu Asn Thr Gly
 1 5 10 15

Trp Leu

<210> 1242
 <211> 18
 <212> PRT
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<400> 1242

Asn Cys Asn Glu Ser Leu Asn Thr Gly Trp Leu Ala Gly Leu Phe Tyr
 1 5 10 15

Gln His

<210> 1243
 <211> 18
 <212> PRT
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<400> 1243

Thr Gly Trp Leu Ala Gly Leu Phe Tyr Gln His Lys Phe Asn Ser Ser
 1 5 10 15

Gly Cys

<210> 1244
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1244

Phe Tyr Gln His Lys Phe Asn Ser Ser Gly Cys Pro Glu Arg Leu Ala
 1 5 10 15

Ser Cys

<210> 1245
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1245

Ser Ser Gly Cys Pro Glu Arg Leu Ala Ser Cys Arg Arg Leu Thr Asp
 1 5 10 15

Phe Ala

<210> 1246
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1246

Leu Ala Ser Cys Arg Arg Leu Thr Asp Phe Ala Gln Gly Trp Gly Pro
 1 5 10 15

Ile Ser

<210> 1247
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1247

Thr Asp Phe Ala Gln Gly Trp Gly Pro Ile Ser Tyr Ala Asn Gly Ser
 1 5 10 15

Gly Leu

<210> 1248
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1248

Gly Pro Ile Ser Tyr Ala Asn Gly Ser Gly Leu Asp Glu Arg Pro Tyr
 1 5 10 15

Cys Trp

<210> 1249
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1249

Gly Ser Gly Leu Asp Glu Arg Pro Tyr Cys Trp His Tyr Pro Pro Arg
 1 5 10 15

Pro Cys

<210> 1250
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1250

Pro Tyr Cys Trp His Tyr Pro Pro Arg Pro Cys Gly Ile Val Pro Ala
 1 5 10 15

Lys Ser

<210> 1251
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1251

Pro Arg Pro Cys Gly Ile Val Pro Ala Lys Ser Val Cys Gly Pro Val
 1 5 10 15

Tyr Cys

<210> 1252
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1252

Pro Ala Lys Ser Val Cys Gly Pro Val Tyr Cys Phe Thr Pro Ser Pro
 1 5 10 15

Val Val

<210> 1253
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1253

Pro Val Tyr Cys Phe Thr Pro Ser Pro Val Val Val Gly Thr Thr Asp
 1 5 10 15

Arg Ser

<210> 1254
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1254

Ser Pro Val Val Val Gly Thr Thr Asp Arg Ser Gly Ala Pro Thr Tyr
 1 5 10 15

Ser Trp

<210> 1255
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1255

Thr Asp Arg Ser Gly Ala Pro Thr Tyr Ser Trp Gly Ala Asn Asp Thr
 1 5 10 15

Asp Val

<210> 1256
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1256

Thr Tyr Ser Trp Gly Ala Asn Asp Thr Asp Val Phe Val Leu Asn Asn
 1 5 10 15

Thr Arg

<210> 1257
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1257

Asp Thr Asp Val Phe Val Leu Asn Asn Thr Arg Pro Pro Leu Gly Asn
 1 5 10 15

Trp Phe

<210> 1258
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1258

Asn Asn Thr Arg Pro Pro Leu Gly Asn Trp Phe Gly Cys Thr Trp Met
 1 5 10 15

Asn Ser

<210> 1259
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1259

Gly Asn Trp Phe Gly Cys Thr Trp Met Asn Ser Thr Gly Phe Thr Lys
 1 5 10 15

Val Cys

<210> 1260
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1260

Trp Met Asn Ser Thr Gly Phe Thr Lys Val Cys Gly Ala Pro Pro Cys
 1 5 10 15

Val Ile

<210> 1261
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1261

Thr Lys Val Cys Gly Ala Pro Pro Cys Val Ile Gly Gly Val Gly Asn
 1 5 10 15

Asn Thr

<210> 1262
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1262

Pro Cys Val Ile Gly Gly Val Gly Asn Asn Thr Leu Leu Cys Pro Thr
 1 5 10 15

Asp Cys

<210> 1263
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1263

Gly Asn Asn Thr Leu Leu Cys Pro Thr Asp Cys Phe Arg Lys His Pro
 1 5 10 15

Glu Ala

<210> 1264
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1264

Pro Thr Asp Cys Phe Arg Lys His Pro Glu Ala Thr Tyr Ser Arg Cys
 1 5 10 15

Gly Ser

<210> 1265
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1265

His Pro Glu Ala Thr Tyr Ser Arg Cys Gly Ser Gly Pro Trp Ile Thr
 1 5 10 15

Pro Arg

<210> 1266

<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1266

Arg Cys Gly Ser Gly Pro Trp Ile Thr Pro Arg Cys Met Val Asp Tyr
1 5 10 15

Pro Tyr

<210> 1267
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1267

Ile Thr Pro Arg Cys Met Val Asp Tyr Pro Tyr Arg Leu Trp His Tyr
1 5 10 15

Pro Cys

<210> 1268
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1268

Asp Tyr Pro Tyr Arg Leu Trp His Tyr Pro Cys Thr Ile Asn Tyr Thr
1 5 10 15

Ile Phe

<210> 1269
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1269

His Tyr Pro Cys Thr Ile Asn Tyr Thr Ile Phe Lys Val Arg Met Tyr
1 5 10 15

Val Gly

<210> 1270
<211> 18

<212> PRT
 <213> Hepatitis C virus

<400> 1270

Tyr Thr Ile Phe Lys Val Arg Met Tyr Val Gly Gly Val Glu His Arg
 1 5 10 15

Leu Glu

<210> 1271
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1271

Met Tyr Val Gly Gly Val Glu His Arg Leu Glu Ala Ala Cys Asn Trp
 1 5 10 15

Thr Arg

<210> 1272
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1272

His Arg Leu Glu Ala Ala Cys Asn Trp Thr Arg Gly Glu Arg Cys Asp
 1 5 10 15

Leu Glu

<210> 1273
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1273

Asn Trp Thr Arg Gly Glu Arg Cys Asp Leu Glu Asp Arg Asp Arg Ser
 1 5 10 15

Glu Leu

<210> 1274
 <211> 18
 <212> PRT

<213> Hepatitis C virus

<400> 1274

Cys Asp Leu Glu Asp Arg Asp Arg Ser Glu Leu Ser Pro Leu Leu Leu
1 5 10 15

Ser Thr

<210> 1275

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1275

Arg Ser Glu Leu Ser Pro Leu Leu Leu Ser Thr Thr Gln Trp Gln Val
1 5 10 15

Leu Pro

<210> 1276

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1276

Leu Leu Ser Thr Thr Gln Trp Gln Val Leu Pro Cys Ser Phe Thr Thr
1 5 10 15

Leu Pro

<210> 1277

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1277

Gln Val Leu Pro Cys Ser Phe Thr Thr Leu Pro Ala Leu Ser Thr Gly
1 5 10 15

Leu Ile

<210> 1278

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1278

Thr Thr Leu Pro Ala Leu Ser Thr Gly Leu Ile His Leu His Gln Asn
1 5 10 15

Ile Val

<210> 1279

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1279

Thr Gly Leu Ile His Leu His Gln Asn Ile Val Asp Val Gln Tyr Leu
1 5 10 15

Tyr Gly

<210> 1280

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1280

Gln Asn Ile Val Asp Val Gln Tyr Leu Tyr Gly Val Gly Ser Ser Ile
1 5 10 15

Ala Ser

<210> 1281

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1281

Tyr Leu Tyr Gly Val Gly Ser Ser Ile Ala Ser Trp Ala Ile Lys Trp
1 5 10 15

Glu Tyr

<210> 1282

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1282

Ser Ile Ala Ser Trp Ala Ile Lys Trp Glu Tyr Val Val Leu Leu Phe
1 5 10 15

Leu Leu

<210> 1283

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1283

Lys Trp Glu Tyr Val Val Leu Leu Phe Leu Leu Leu Ala Asp Ala Arg
1 5 10 15

Val Cys

<210> 1284

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1284

Leu Phe Leu Leu Leu Ala Asp Ala Arg Val Cys Ser Cys Leu Trp Met
1 5 10 15

Met Leu

<210> 1285

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1285

Ala Arg Val Cys Ser Cys Leu Trp Met Met Leu Leu Ile Ser Gln Ala
1 5 10 15

Glu Ala

<210> 1286

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1286

Trp Met Met Leu Leu Ile Ser Gln Ala Glu Ala Ala Leu Glu Asn Leu
1 5 10 15

Val Ile

<210> 1287
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1287

Gln Ala Glu Ala Ala Leu Glu Asn Leu Val Ile Leu Asn Ala Ala Ser
1 5 10 15

Leu Ala

<210> 1288
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1288

Asn Leu Val Ile Leu Asn Ala Ala Ser Leu Ala Gly Thr His Gly Leu
1 5 10 15

Val Ser

<210> 1289
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1289

Ala Ser Leu Ala Gly Thr His Gly Leu Val Ser Phe Leu Val Phe Phe
1 5 10 15

Cys Phe

<210> 1290
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1290

Gly Leu Val Ser Phe Leu Val Phe Phe Cys Phe Ala Trp Tyr Leu Lys
 1 5 10 15

Gly Arg

<210> 1291
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1291

Phe Phe Cys Phe Ala Trp Tyr Leu Lys Gly Arg Trp Val Pro Gly Ala
 1 5 10 15

Val Tyr

<210> 1292
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1292

Leu Lys Gly Arg Trp Val Pro Gly Ala Val Tyr Ala Phe Tyr Gly Met
 1 5 10 15

Trp Pro

<210> 1293
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1293

Gly Ala Val Tyr Ala Phe Tyr Gly Met Trp Pro Leu Leu Leu Leu Leu
 1 5 10 15

Leu Ala

<210> 1294
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1294

Gly Met Trp Pro Leu Leu Leu Leu Leu Ala Leu Pro Gln Arg Ala

1 5 10 15

Tyr Ala

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<210> 1295
<211> 18
<212> PRT
<213> Hepatitis C virus
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<400> 1295

Leu Leu Leu Ala Leu Pro Gln Arg Ala Tyr Ala Leu Asp Thr Glu Val
1 5 10 15

Ala Ala

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<210> 1296
<211> 18
<212> PRT
<213> Hepatitis C virus
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<400> 1296

Arg Ala Tyr Ala Leu Asp Thr Glu Val Ala Ala Ser Cys Gly Gly Val
1. 5 10 15

Val Leu

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<210> 1297
<211> 18
<212> PRT
<213> Hepatitis C virus
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<400> 1297

Glu Val Ala Ala Ser Cys Gly Gly Val Val Leu Val Gly Leu Met Ala
1 5 10 15

Leu Thr

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<210> 1298
<211> 18
<212> PRT
<213> Hepatitis C virus
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<400> 1298

Gly Val Val Leu Val Gly Leu Met Ala Leu Thr Leu Ser Pro Tyr Tyr
1 5 10 15

Lys Arg

<210> 1299
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1299

Met Ala Leu Thr Leu Ser Pro Tyr Tyr Lys Arg Tyr Ile Ser Trp Cys
1 5 10 15

Met Trp

<210> 1300
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1300

Tyr Tyr Lys Arg Tyr Ile Ser Trp Cys Met Trp Trp Leu Gln Tyr Phe
1 5 10 15

Leu Thr

<210> 1301
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1301

Trp Cys Met Trp Trp Leu Gln Tyr Phe Leu Thr Arg Val Glu Ala Gln
1 5 10 15

Leu His

<210> 1302
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1302

Tyr Phe Leu Thr Arg Val Glu Ala Gln Leu His Val Trp Val Pro Pro
1 5 10 15

Leu Asn

<210> 1303
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1303

Ala Gln Leu His Val Trp Val Pro Pro Leu Asn Val Arg Gly Gly Arg
1 5 10 15

Asp Ala

<210> 1304
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1304

Pro Pro Leu Asn Val Arg Gly Gly Arg Asp Ala Val Ile Leu Leu Met
1 5 10 15

Cys Val

<210> 1305
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1305

Gly Arg Asp Ala Val Ile Leu Leu Met Cys Val Val His Pro Thr Leu
1 5 10 15

Val Phe

<210> 1306
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1306

Leu Met Cys Val Val His Pro Thr Leu Val Phe Asp Ile Thr Lys Leu
1 5 10 15

Leu Leu

<210> 1307
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1307

Thr Leu Val Phe Asp Ile Thr Lys Leu Leu Leu Ala Ile Phe Gly Pro
 1 5 10 15

Leu Trp

<210> 1308
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1308

Lys Leu Leu Leu Ala Ile Phe Gly Pro Leu Trp Ile Leu Gln Ala Ser
 1 5 10 15

Leu Leu

<210> 1309
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1309

Gly Pro Leu Trp Ile Leu Gln Ala Ser Leu Leu Lys Val Pro Tyr Phe
 1 5 10 15

Val Arg

<210> 1310
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1310

Ala Ser Leu Leu Lys Val Pro Tyr Phe Val Arg Val Gln Gly Leu Leu
 1 5 10 15

Arg Ile

<210> 1311
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1311

Tyr Phe Val Arg Val Gln Gly Leu Leu Arg Ile Cys Ala Leu Ala Arg
 1 5 10 15

Lys Ile

<210> 1312
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1312

Leu Leu Arg Ile Cys Ala Leu Ala Arg Lys Ile Ala Gly Gly His Tyr
 1 5 10 15

Val Gln

<210> 1313
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1313

Ala Arg Lys Ile Ala Gly Gly His Tyr Val Gln Met Ala Ile Ile Lys
 1 5 10 15

Leu Gly

<210> 1314
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1314

His Tyr Val Gln Met Ala Ile Ile Lys Leu Gly Ala Leu Thr Gly Thr
 1 5 10 15

Tyr Val

<210> 1315
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1315

Ile Lys Leu Gly Ala Leu Thr Gly Thr Tyr Val Tyr Asn His Leu Thr
 1 5 10 15

Pro Leu

<210> 1316
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1316

Gly Thr Tyr Val Tyr Asn His Leu Thr Pro Leu Arg Asp Trp Ala His
 1 5 10 15

Asn Gly

<210> 1317
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1317

Leu Thr Pro Leu Arg Asp Trp Ala His Asn Gly Leu Arg Asp Leu Ala
 1 5 10 15

Val Ala

<210> 1318
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1318

Ala His Asn Gly Leu Arg Asp Leu Ala Val Ala Val Glu Pro Val Val
 1 5 10 15

Phe Ser

<210> 1319
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1319

Leu Ala Val Ala Val Glu Pro Val Val Phe Ser Arg Met Glu Thr Lys
1 5 10 15

Leu Ile

<210> 1320
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1320

Val Val Phe Ser Arg Met Glu Thr Lys Leu Ile Thr Trp Gly Ala Asp
1 5 10 15

Thr Ala

<210> 1321
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1321

Thr Lys Leu Ile Thr Trp Gly Ala Asp Thr Ala Ala Cys Gly Asp Ile
1 5 10 15

Ile Asn

<210> 1322
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1322

Ala Asp Thr Ala Ala Cys Gly Asp Ile Ile Asn Gly Leu Pro Val Ser
1 5 10 15

Ala Arg

<210> 1323
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1323

Asp Ile Ile Asn Gly Leu Pro Val Ser Ala Arg Arg Gly Gln Glu Ile
 1 5 10 15

Leu Leu

<210> 1324
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1324

Val Ser Ala Arg Arg Gly Gln Glu Ile Leu Leu Gly Pro Ala Asp Gly
 1 5 10 15

Met Val

<210> 1325
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1325

Glu Ile Leu Leu Gly Pro Ala Asp Gly Met Val Ser Lys Gly Trp Arg
 1 5 10 15

Leu Leu

<210> 1326
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1326

Asp Gly Met Val Ser Lys Gly Trp Arg Leu Leu Ala Pro Ile Thr Ala
 1 5 10 15

Tyr Ala

<210> 1327

<211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1327

Trp Arg Leu Leu Ala Pro Ile Thr Ala Tyr Ala Gln Gln Thr Arg Gly
 1 5 10 15

Leu Leu

<210> 1328
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1328

Thr Ala Tyr Ala Gln Gln Thr Arg Gly Leu Leu Gly Cys Ile Ile Thr
 1 5 10 15

Ser Leu

<210> 1329
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1329

Arg Gly Leu Leu Gly Cys Ile Ile Thr Ser Leu Thr Gly Arg Asp Lys
 1 5 10 15

Asn Gln

<210> 1330
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1330

Ile Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val
 1 5 10 15

Gln Ile

<210> 1331
 <211> 18

<212> PRT
 <213> Hepatitis C virus
 <400> 1331

Asp Lys Asn Gln Val Glu Gly Glu Val Gln Ile Val Ser Thr Ala Thr
 1 5 10 15

Gln Thr

<210> 1332
 <211> 15
 <212> PRT
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<400> 1332

Glu Val Gln Ile Val Ser Thr Ala Thr Gln Thr Phe Leu Ala Thr
 1 5 10 15

<210> 1333
 <211> 14
 <212> PRT
 <213> Hepatitis C virus

<400> 1333

Val Ser Thr Ala Thr Gln Thr Phe Leu Ala Thr Cys Ile Asn
 1 5 10

<210> 1334
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1334

Ala Thr Gln Thr Phe Leu Ala Thr Cys Ile Asn Gly Val Cys Trp Thr
 1 5 10 15

Val Tyr

<210> 1335
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1335

Thr Cys Ile Asn Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Thr
 1 5 10 15

Arg Thr

<210> 1336
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1336

Trp Thr Val Tyr His Gly Ala Gly Thr Arg Thr Ile Ala Ser Pro Lys
 1 5 10 15

Gly Pro

<210> 1337
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1337

Gly Thr Arg Thr Ile Ala Ser Pro Lys Gly Pro Val Ile Gln Met Tyr
 1 5 10 15

Thr Asn

<210> 1338
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1338

Pro Lys Gly Pro Val Ile Gln Met Tyr Thr Asn Val Asp Gln Asp Leu
 1 5 10 15

Val Gly

<210> 1339
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1339

Met Tyr Thr Asn Val Asp Gln Asp Leu Val Gly Trp Pro Ala Pro Gln
 1 5 10 15

Gly Ser

<210> 1340
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1340

Asp Leu Val Gly Trp Pro Ala Pro Gln Gly Ser Arg Ser Leu Thr Pro
 1 5 10 15

Cys Thr

<210> 1341
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1341

Pro Gln Gly Ser Arg Ser Leu Thr Pro Cys Thr Cys Gly Ser Ser Asp
 1 5 10 15

Leu Tyr

<210> 1342
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1342

Thr Pro Cys Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His
 1 5 10 15

Ala Asp

<210> 1343
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1343

Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val Ile Pro Val Arg
 1 5 10 15

Arg Arg

<210> 1344
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1344

Arg His Ala Asp Val Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly
 1 5 10 15

Ser Leu

<210> 1345
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1345

Val Arg Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro Arg Pro
 1 5 10 15

Ile Ser

<210> 1346
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1346

Arg Gly Ser Leu Leu Ser Pro Arg Pro Ile Ser Tyr Leu Lys Gly Ser
 1 5 10 15

Ser Gly

<210> 1347
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1347

Arg Pro Ile Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys
 1 5 10 15

Pro Ala

<210> 1348
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1348

Gly Ser Ser Gly Gly Pro Leu Leu Cys Pro Ala Gly His Ala Val Gly
 1 5 10 15

Leu Phe

<210> 1349
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1349

Leu Cys Pro Ala Gly His Ala Val Gly Leu Phe Arg Ala Ala Val Cys
 1 5 10 15

Thr Arg

<210> 1350
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1350

Val Gly Leu Phe Arg Ala Ala Val Cys Thr Arg Gly Val Ala Lys Ala
 1 5 10 15

Val Asp

<210> 1351
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1351

Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Ile Pro Val Glu
 1 5 10 15

Asn Leu

<210> 1352
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1352

Lys Ala Val Asp Phe Ile Pro Val Glu Asn Leu Glu Thr Thr Met Arg
 1 5 10 15

Ser Pro

<210> 1353
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1353

Val Glu Asn Leu Glu Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn
 1 5 10 15

Ser Ser

<210> 1354
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1354

Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala Val Pro
 1 5 10 15

Gln Ser

<210> 1355
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1355

Asp Asn Ser Ser Pro Pro Ala Val Pro Gln Ser Phe Gln Val Ala His
 1 5 10 15

Leu His

<210> 1356

<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1356

Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser
1 5 10 15

Gly Lys

<210> 1357
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1357

Ala His Leu His Ala Pro Thr Gly Ser Gly Lys Ser Thr Lys Val Pro
1 5 10 15

Ala Ala

<210> 1358
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1358

Gly Ser Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly
1 5 10 15

Tyr Lys

<210> 1359
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1359

Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val Leu Val Leu Asn
1 5 10 15

Pro Ser

<210> 1360
<211> 18

<212> PRT
<213> Hepatitis C virus
<400> 1360

Gln Gly Tyr Lys Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu
1 5 10 15

Gly Phe

<210> 1361
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1361

Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr Met Ser
1 5 10 15

Lys Ala

<210> 1362
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1362

Thr Leu Gly Phe Gly Ala Tyr Met Ser Lys Ala His Gly Val Asp Pro
1 5 10 15

Asn Ile

<210> 1363
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1363

Met Ser Lys Ala His Gly Val Asp Pro Asn Ile Arg Thr Gly Val Arg
1 5 10 15

Thr Ile

<210> 1364
<211> 18
<212> PRT

<213> Hepatitis C virus

<400> 1364

Asp Pro Asn Ile Arg Thr Gly Val Arg Thr Ile Thr Thr Gly Ser Pro
1 5 10 15

Ile Thr

<210> 1365

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1365

Val Arg Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly
1 5 10 15

Lys Phe

<210> 1366

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1366

Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys Phe Leu Ala Asp Gly Gly
1 5 10 15

Cys Ser

<210> 1367

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1367

Tyr Gly Lys Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp
1 5 10 15

Ile Ile

<210> 1368

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1368

Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys Asp Glu Cys
1 5 10 15

His Ser

<210> 1369

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1369

Tyr Asp Ile Ile Ile Cys Asp Glu Cys His Ser Thr Asp Ala Thr Ser
1 5 10 15

Ile Leu

<210> 1370

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1370

Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly Thr Val
1 5 10 15

Leu Asp

<210> 1371

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1371

Thr Ser Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu Thr Ala
1 5 10 15

Gly Ala

<210> 1372

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1372

Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu
1 5 10 15

Ala Thr

<210> 1373

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1373

Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly
1 5 10 15

Ser Val

<210> 1374

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1374

Val Leu Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Ser His Pro
1 5 10 15

Asn Ile

<210> 1375

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1375

Pro Gly Ser Val Thr Val Ser His Pro Asn Ile Glu Glu Val Ala Leu
1 5 10 15

Ser Thr

<210> 1376

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1376

His Pro Asn Ile Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro
1 5 10 15

Phe Tyr

<210> 1377
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1377

Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala Ile Pro
1 5 10 15

Leu Glu

<210> 1378
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1378

Ile Pro Phe Tyr Gly Lys Ala Ile Pro Leu Glu Val Ile Lys Gly Gly
1 5 10 15

Arg His

<210> 1379
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1379

Ile Pro Leu Glu Val Ile Lys Gly Gly Arg His Leu Ile Phe Cys His
1 5 10 15

Ser Lys

<210> 1380
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1380

Gly Gly Arg His Leu Ile Phe Cys His Ser Lys Lys Lys Cys Asp Glu
 1 5 10 15

Leu Ala

<210> 1381
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1381

Cys His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Val Ala
 1 5 10 15

Leu Gly

<210> 1382
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1382

Asp Glu Leu Ala Ala Lys Leu Val Ala Leu Gly Ile Asn Ala Val Ala
 1 5 10 15

Tyr Tyr

<210> 1383
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1383

Val Ala Leu Gly Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val
 1 5 10 15

Ser Val

<210> 1384
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1384

Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro Thr Ser Gly

Asp Val

<400> 1385

Asp Ala

<400> 1386

Thr Gly

<400> 1387

Ile Asp

<400> 1388

322

Thr Gln

<210> 1389
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1389

Ser Val Ile Asp Cys Asn Thr Cys Val Thr Gln Thr Val Asp Phe Ser
 1 5 10 15

Leu Asp

<210> 1390
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1390

Cys Val Thr Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile
 1 5 10 15

Glu Thr

<210> 1391
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1391

Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr Thr Leu Pro Gln
 1 5 10 15

Asp Ala

<210> 1392
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1392

Thr Ile Glu Thr Thr Thr Leu Pro Gln Asp Ala Val Ser Arg Thr Gln
 1 5 10 15

Arg Arg

<210> 1393
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1393

Pro Gln Asp Ala Val Ser Arg Thr Gln Arg Arg Gly Arg Thr Gly Arg
 1 5 10 15

Gly Lys

<210> 1394
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1394

Thr Gln Arg Arg Gly Arg Thr Gly Arg Gly Lys Pro Gly Ile Tyr Arg
 1 5 10 15

Phe Val

<210> 1395
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1395

Gly Arg Gly Lys Pro Gly Ile Tyr Arg Phe Val Ala Pro Gly Glu Arg
 1 5 10 15

Pro Ser

<210> 1396
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1396

Tyr Arg Phe Val Ala Pro Gly Glu Arg Pro Ser Gly Met Phe Asp Ser
 1 5 10 15

Ser Val

<210> 1397
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1397

Glu Arg Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr
 1 5 10 15

Asp Ala

<210> 1398
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1398

Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala Gly Cys Ala Trp Tyr
 1 5 10 15

Glu Leu

<210> 1399
 <211> 15
 <212> PRT
 <213> Hepatitis C virus

<400> 1399

Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu
 1 5 10 15

<210> 1400
 <211> 14
 <212> PRT
 <213> Hepatitis C virus

<400> 1400

Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Thr Val
 1 5 10

<210> 1401
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1401

Trp Tyr Glu Leu Thr Pro Ala Glu Thr Thr Val Arg Leu Arg Ala Tyr
1 5 10 15

Met Asn

<210> 1402

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1402

Glu Thr Thr Val Arg Leu Arg Ala Tyr Met Asn Thr Pro Gly Leu Pro
1 5 10 15

Val Cys

<210> 1403

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1403

Ala Tyr Met Asn Thr Pro Gly Leu Pro Val Cys Gln Asp His Leu Glu
1 5 10 15

Phe Trp

<210> 1404

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1404

Leu Pro Val Cys Gln Asp His Leu Glu Phe Trp Glu Gly Val Phe Thr
1 5 10 15

Gly Leu

<210> 1405

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1405

Leu Glu Phe Trp Glu Gly Val Phe Thr Gly Leu Thr His Ile Asp Ala
 1 5 10 15

His Phe

<210> 1406
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1406

Phe Thr Gly Leu Thr His Ile Asp Ala His Phe Leu Ser Gln Thr Lys
 1 5 10 15

Gln Ser

<210> 1407
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1407

Asp Ala His Phe Leu Ser Gln Thr Lys Gln Ser Gly Glu Asn Phe Pro
 1 5 10 15

Tyr Leu

<210> 1408
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1408

Thr Lys Gln Ser Gly Glu Asn Phe Pro Tyr Leu Val Ala Tyr Gln Ala
 1 5 10 15

Thr Val

<210> 1409
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1409

Phe Pro Tyr Leu Val Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln
 1 5 10 15

Ala Pro

<210> 1410
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1410

Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro Pro Pro Ser Trp Asp
 1 5 10 15

Gln Met

<210> 1411
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1411

Ala Gln Ala Pro Pro Pro Ser Trp Asp Gln Met Trp Lys Cys Leu Ile
 1 5 10 15

Arg Leu

<210> 1412
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1412

Trp Asp Gln Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr Leu His
 1 5 10 15

Gly Pro

<210> 1413
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1413

Leu Ile Arg Leu Lys Pro Thr Leu His Gly Pro Thr Pro Leu Leu Tyr

Arg Leu

Glu Val

Ile Thr

Cys Met

Val Val

<210> 1418
 <211> 14
 <212> PRT
 <213> Hepatitis C virus

<400> 1418

Met Thr Cys Met Ser Ala Asp Leu Glu Val Val Thr Ser Thr
 1 5 10

<210> 1419
 <211> 14
 <212> PRT
 <213> Hepatitis C virus

<400> 1419

Thr Ser Thr Trp Val Leu Val Gly Gly Val Leu Ala Ala Leu
 1 5 10

<210> 1420
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1420

Trp Val Leu Val Gly Gly Val Leu Ala Ala Leu Ala Ala Tyr Cys Leu
 1 5 10 15

Ser Thr

<210> 1421
 <211> 15
 <212> PRT
 <213> Hepatitis C virus

<400> 1421

Leu Ala Ala Leu Ala Ala Tyr Cys Leu Ser Thr Gly Cys Val Val
 1 5 10 15

<210> 1422
 <211> 14
 <212> PRT
 <213> Hepatitis C virus

<400> 1422

Ala Ala Tyr Cys Leu Ser Thr Gly Cys Val Val Ile Val Gly
 1 5 10

<210> 1423
 <211> 15
 <212> PRT
 <213> Hepatitis C virus

<400> 1423

Cys Leu Ser Thr Gly Cys Val Val Ile Val Gly Arg Ile Val Leu
 1 5 10 15

<210> 1424
 <211> 14
 <212> PRT
 <213> Hepatitis C virus

<400> 1424

Gly Cys Val Val Ile Val Gly Arg Ile Val Leu Ser Gly Lys
 1 5 10

<210> 1425
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1425

Val Ile Val Gly Arg Ile Val Leu Ser Gly Lys Pro Ala Ile Ile Pro
 1 5 10 15

Asp Arg

<210> 1426
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1426

Leu Ser Gly Lys Pro Ala Ile Ile Pro Asp Arg Glu Val Leu Tyr Gln
 1 5 10 15

Glu Phe

<210> 1427
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1427

Ile Pro Asp Arg Glu Val Leu Tyr Gln Glu Phe Asp Glu Met Glu Glu
1 5 10 15

Cys Ser

<210> 1428

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1428

Tyr Gln Glu Phe Asp Glu Met Glu Glu Cys Ser Gln His Leu Pro Tyr
1 5 10 15

Ile Glu

<210> 1429

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1429

Glu Glu Cys Ser Gln His Leu Pro Tyr Ile Glu Gln Gly Met Met Leu
1 5 10 15

Ala Glu

<210> 1430

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1430

Pro Tyr Ile Glu Gln Gly Met Met Leu Ala Glu Gln Phe Lys Gln Lys
1 5 10 15

Ala Leu

<210> 1431

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1431

Met Leu Ala Glu Gln Phe Lys Gln Lys Ala Leu Gly Leu Leu Gln Thr
1 5 10 15

Ala Ser

<210> 1432
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1432

Gln Lys Ala Leu Gly Leu Leu Gln Thr Ala Ser Arg Gln Ala Glu Val
1 5 10 15

Ile Thr

<210> 1433
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1433

Gln Thr Ala Ser Arg Gln Ala Glu Val Ile Thr Pro Ala Val Gln Thr
1 5 10 15

Asn Trp

<210> 1434
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1434

Glu Val Ile Thr Pro Ala Val Gln Thr Asn Trp Gln Lys Leu Glu Val
1 5 10 15

Phe Trp

<210> 1435
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1435

Gln Thr Asn Trp Gln Lys Leu Glu Val Phe Trp Ala Lys His Met Trp
 1 5 10 15

Asn Phe

<210> 1436
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1436

Glu Val Phe Trp Ala Lys His Met Trp Asn Phe Ile Ser Gly Ile Gln
 1 5 10 15

Tyr Leu

<210> 1437
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1437

Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser Thr
 1 5 10 15

Leu Pro

<210> 1438
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1438

Ile Gln Tyr Leu Ala Gly Leu Ser Thr Leu Pro Gly Asn Pro Ala Ile
 1 5 10 15

Ala Ser

<210> 1439
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1439

Ser Thr Leu Pro Gly Asn Pro Ala Ile Ala Ser Leu Met Ala Phe Thr

Ala Ala

Thr Thr

Phe Asn

Val Ala

Leu Leu Phe Asn Ile Leu Gly Gly Trp Val Ala Ala Gln Leu Ala Ala
1 5 10 15

Pro Gly

<210> 1444
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1444

Gly Trp Val Ala Ala Gln Leu Ala Ala Pro Gly Ala Ala Thr Ala Phe
1 5 10 15

Val Gly

<210> 1445
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1445

Ala Ala Pro Gly Ala Ala Thr Ala Phe Val Gly Ala Gly Leu Ala Gly
1 5 10 15

Ala Ala

<210> 1446
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1446

Ala Phe Val Gly Ala Gly Leu Ala Gly Ala Ala Ile Gly Ser Val Gly
1 5 10 15

Leu Gly

<210> 1447
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1447

Ala Gly Ala Ala Ile Gly Ser Val Gly Leu Gly Lys Val Leu Val Asp
1 5 10 15

Ile Leu

<210> 1448
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1448

Val Gly Leu Gly Lys Val Leu Val Asp Ile Leu Ala Gly Tyr Gly Ala
1 5 10 15

Gly Val

<210> 1449
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1449

Val Asp Ile Leu Ala Gly Tyr Gly Ala Gly Val Ala Gly Ala Leu Val
1 5 10 15

Ala Phe

<210> 1450
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1450

Gly Ala Gly Val Ala Gly Ala Leu Val Ala Phe Lys Ile Met Ser Gly
1 5 10 15

Glu Val

<210> 1451
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1451

Leu Val Ala Phe Lys Ile Met Ser Gly Glu Val Pro Ser Thr Glu Asp
1 5 10 15

Leu Val

<210> 1452
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1452

Ser Gly Glu Val Pro Ser Thr Glu Asp Leu Val Asn Leu Leu Pro Ala
 1 5 10 15

Ile Leu

<210> 1453
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1453

Glu Asp Leu Val Asn Leu Leu Pro Ala Ile Leu Ser Pro Gly Ala Leu
 1 5 10 15

Val Val

<210> 1454
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1454

Pro Ala Ile Leu Ser Pro Gly Ala Leu Val Val Gly Val Val Cys Ala
 1 5 10 15

Ala Ile

<210> 1455
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1455

Ala Leu Val Val Gly Val Val Cys Ala Ala Ile Leu Arg Arg His Val
 1 5 10 15

Gly Pro

<210> 1456
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1456

Cys Ala Ala Ile Leu Arg Arg His Val Gly Pro Gly Glu Gly Ala Val
 1 5 10 15

Gln Trp

<210> 1457
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1457

His Val Gly Pro Gly Glu Gly Ala Val Gln Trp Met Asn Arg Leu Ile
 1 5 10 15

Ala Phe

<210> 1458
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1458

Ala Val Gln Trp Met Asn Arg Leu Ile Ala Phe Ala Ser Arg Gly Asn
 1 5 10 15

His Val

<210> 1459
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1459

Leu Ile Ala Phe Ala Ser Arg Gly Asn His Val Ser Pro Thr His Tyr
 1 5 10 15

Val Pro

<210> 1460
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1460

Gly Asn His Val Ser Pro Thr His Tyr Val Pro Glu Ser Asp Ala Ala
 1 5 10 15

Ala Arg

<210> 1461
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1461

His Tyr Val Pro Glu Ser Asp Ala Ala Ala Arg Val Thr Ala Ile Leu
 1 5 10 15

Ser Ser

<210> 1462
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1462

Ala Ala Ala Arg Val Thr Ala Ile Leu Ser Ser Leu Thr Val Thr Gln
 1 5 10 15

Leu Leu

<210> 1463
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1463

Ile Leu Ser Ser Leu Thr Val Thr Gln Leu Leu Arg Arg Leu His Gln
 1 5 10 15

Trp Ile

<210> 1464
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1464

Thr Gln Leu Leu Arg Arg Leu His Gln Trp Ile Ser Ser Glu Cys Thr
 1 5 10 15

Thr Pro

<210> 1465
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1465

His Gln Trp Ile Ser Ser Glu Cys Thr Thr Pro Cys Ser Gly Ser Trp
 1 5 10 15

Leu Arg

<210> 1466
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1466

Cys Thr Thr Pro Cys Ser Gly Ser Trp Leu Arg Asp Ile Trp Asp Trp
 1 5 10 15

Ile Cys

<210> 1467
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1467

Ser Trp Leu Arg Asp Ile Trp Asp Trp Ile Cys Glu Val Leu Ser Asp
 1 5 10 15

Phe Lys

<210> 1468
 <211> 18
 <212> PRT
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<400> 1468

Asp Trp Ile Cys Glu Val Leu Ser Asp Phe Lys Thr Trp Leu Lys Ala
 1 5 10 15

Lys Leu

<210> 1469
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1469

Ser Asp Phe Lys Thr Trp Leu Lys Ala Lys Leu Met Pro Gln Leu Pro
 1 5 10 15

Gly Ile

<210> 1470
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1470

Lys Ala Lys Leu Met Pro Gln Leu Pro Gly Ile Pro Phe Val Ser Cys
 1 5 10 15

Gln Arg

<210> 1471
 <211> 18
 <212> PRT
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<400> 1471

Leu Pro Gly Ile Pro Phe Val Ser Cys Gln Arg Gly Tyr Arg Gly Val
 1 5 10 15

Trp Arg

<210> 1472

<211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1472

Ser Cys Gln Arg Gly Tyr Arg Gly Val Trp Arg Gly Asp Gly Ile Met
 1 5 10 15

His Thr

<210> 1473
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1473

Gly Val Trp Arg Gly Asp Gly Ile Met His Thr Arg Cys His Cys Gly
 1 5 10 15

Ala Glu

<210> 1474
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1474

Ile Met His Thr Arg Cys His Cys Gly Ala Glu Ile Thr Gly His Val
 1 5 10 15

Lys Asn

<210> 1475
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1475

Cys Gly Ala Glu Ile Thr Gly His Val Lys Asn Gly Thr Met Arg Ile
 1 5 10 15

Val Gly

<210> 1476
 <211> 18

<212> PRT
 <213> Hepatitis C virus
 <400> 1476

His Val Lys Asn Gly Thr Met Arg Ile Val Gly Pro Arg Thr Cys Arg
 1 5 10 15

Asn Met

<210> 1477
 <211> 18
 <212> PRT
 <213> Hepatitis C virus
 <400> 1477

Arg Ile Val Gly Pro Arg Thr Cys Arg Asn Met Trp Ser Gly Thr Phe
 1 5 10 15

Pro Ile

<210> 1478
 <211> 18
 <212> PRT
 <213> Hepatitis C virus
 <400> 1478

Cys Arg Asn Met Trp Ser Gly Thr Phe Pro Ile Asn Ala Tyr Thr Thr
 1 5 10 15

Gly Pro

<210> 1479
 <211> 18
 <212> PRT
 <213> Hepatitis C virus
 <400> 1479

Thr Phe Pro Ile Asn Ala Tyr Thr Thr Gly Pro Cys Thr Pro Leu Pro
 1 5 10 15

Ala Pro

<210> 1480
 <211> 18
 <212> PRT

<213> Hepatitis C virus

<400> 1480

Thr Thr Gly Pro Cys Thr Pro Leu Pro Ala Pro Asn Tyr Lys Phe Ala
1 5 10 15

Leu Trp

<210> 1481

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1481

Leu Pro Ala Pro Asn Tyr Lys Phe Ala Leu Trp Arg Val Ser Ala Glu
1 5 10 15

Glu Tyr

<210> 1482

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1482

Phe Ala Leu Trp Arg Val Ser Ala Glu Glu Tyr Val Glu Ile Arg Arg
1 5 10 15

Val Gly

<210> 1483

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1483

Ala Glu Glu Tyr Val Glu Ile Arg Arg Val Gly Asp Phe His Tyr Val
1 5 10 15

Ser Gly

<210> 1484

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1484

Arg Arg Val Gly Asp Phe His Tyr Val Ser Gly Met Thr Thr Asp Asn
 1 5 10 15

Leu Lys

<210> 1485

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1485

Tyr Val Ser Gly Met Thr Thr Asp Asn Leu Lys Cys Pro Cys Gln Ile
 1 5 10 15

Pro Ser

<210> 1486

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1486

Asp Asn Leu Lys Cys Pro Cys Gln Ile Pro Ser Pro Glu Phe Phe Thr
 1 5 10 15

Glu Leu

<210> 1487

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1487

Gln Ile Pro Ser Pro Glu Phe Phe Thr Glu Leu Asp Gly Val Arg Leu
 1 5 10 15

His Arg

<210> 1488

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1488

Phe Thr Glu Leu Asp Gly Val Arg Leu His Arg Phe Ala Pro Pro Cys
1 5 10 15

Lys Pro

<210> 1489

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1489

Arg Leu His Arg Phe Ala Pro Pro Cys Lys Pro Leu Leu Arg Glu Glu
1 5 10 15

Val Ser

<210> 1490

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1490

Pro Cys Lys Pro Leu Leu Arg Glu Glu Val Ser Phe Arg Val Gly Leu
1 5 10 15

His Glu

<210> 1491

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1491

Glu Glu Val Ser Phe Arg Val Gly Leu His Glu Tyr Pro Val Gly Ser
1 5 10 15

Gln Leu

<210> 1492

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1492

Gly Leu His Glu Tyr Pro Val Gly Ser Gln Leu Pro Cys Glu Pro Glu
1 5 10 15

Pro Asp

<210> 1493
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1493

Gly Ser Gln Leu Pro Cys Glu Pro Glu Pro Asp Val Ala Val Leu Thr
1 5 10 15

Ser Met

<210> 1494
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1494

Pro Glu Pro Asp Val Ala Val Leu Thr Ser Met Leu Thr Asp Pro Ser
1 5 10 15

His Ile

<210> 1495
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1495

Leu Thr Ser Met Leu Thr Asp Pro Ser His Ile Thr Ala Glu Ala Ala
1 5 10 15

Gly Arg

<210> 1496
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1496

Pro Ser His Ile Thr Ala Glu Ala Ala Gly Arg Arg Leu Ala Arg Gly
 1 5 10 15

Ser Pro

<210> 1497
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1497

Ala Ala Gly Arg Arg Leu Ala Arg Gly Ser Pro Pro Ser Met Ala Ser
 1 5 10 15

Ser Ser

<210> 1498
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1498

Arg Gly Ser Pro Pro Ser Met Ala Ser Ser Ser Ala Ser Gln Leu Ser
 1 5 10 15

Ala Pro

<210> 1499
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1499

Ala Ser Ser Ser Ala Ser Gln Leu Ser Ala Pro Ser Leu Lys Ala Thr
 1 5 10 15

Cys Thr

<210> 1500
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1500

Leu Ser Ala Pro Ser Leu Lys Ala Thr Cys Thr Ala Asn His Asp Ser

Pro Asp

Ala Asn

Glu Met

Arg Val

Val Val

<210> 1505
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1505

Ile Thr Arg Val Glu Ser Glu Asn Lys Val Val Ile Leu Asp Ser Phe
 1 5 10 15

Asp Pro

<210> 1506
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1506

Asn Lys Val Val Ile Leu Asp Ser Phe Asp Pro Leu Val Ala Glu Glu
 1 5 10 15

Asp Glu

<210> 1507
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1507

Ser Phe Asp Pro Leu Val Ala Glu Glu Asp Glu Arg Glu Val Ser Val
 1 5 10 15

Pro Ala

<210> 1508
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1508

Glu Glu Asp Glu Arg Glu Val Ser Val Pro Ala Glu Ile Leu Arg Lys
 1 5 10 15

Ser Arg

<210> 1509
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1509

Ser Val Pro Ala Glu Ile Leu Arg Lys Ser Arg Arg Phe Ala Arg Ala
 1 5 10 15

Leu Pro

<210> 1510
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1510

Arg Lys Ser Arg Arg Phe Ala Arg Ala Leu Pro Val Trp Ala Arg Pro
 1 5 10 15

Asp Tyr

<210> 1511
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1511

Arg Ala Leu Pro Val Trp Ala Arg Pro Asp Tyr Asn Pro Pro Leu Val
 1 5 10 15

Glu Thr

<210> 1512
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1512

Arg Pro Asp Tyr Asn Pro Pro Leu Val Glu Thr Trp Lys Lys Pro Asp
 1 5 10 15

Tyr Glu

<210> 1513
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1513

Leu Val Glu Thr Trp Lys Lys Pro Asp Tyr Glu Pro Pro Val Val His
 1 5 10 15

Gly Cys

<210> 1514
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1514

Pro Asp Tyr Glu Pro Pro Val Val His Gly Cys Pro Leu Pro Pro Pro
 1 5 10 15

Arg Ser

<210> 1515
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1515

Val His Gly Cys Pro Leu Pro Pro Pro Arg Ser Pro Pro Val Pro Pro
 1 5 10 15

Pro Arg

<210> 1516
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1516

Pro Pro Arg Ser Pro Pro Val Pro Pro Pro Arg Lys Lys Arg Thr Val
 1 5 10 15

Val Leu

<210> 1517
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1517

Pro Pro Pro Arg Lys Lys Arg Thr Val Val Leu Thr Glu Ser Thr Leu
 1 5 10 15

Ser Thr

<210> 1518
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1518

Thr Val Val Leu Thr Glu Ser Thr Leu Ser Thr Ala Leu Ala Glu Leu
 1 5 10 15

Ala Thr

<210> 1519
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1519

Thr Leu Ser Thr Ala Leu Ala Glu Leu Ala Thr Lys Ser Phe Gly Ser
 1 5 10 15

Ser Ser

<210> 1520
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1520

Glu Leu Ala Thr Lys Ser Phe Gly Ser Ser Ser Thr Ser Gly Ile Thr
 1 5 10 15

Gly Asp

<210> 1521
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1521

Gly Ser Ser Ser Thr Ser Gly Ile Thr Gly Asp Asn Thr Thr Thr Ser
 1 5 10 15

Ser Glu

<210> 1522
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1522

Ile Thr Gly Asp Asn Thr Thr Thr Ser Ser Glu Pro Ala Pro Ser Gly
 1 5 10 15

Cys Pro

<210> 1523
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1523

Thr Ser Ser Glu Pro Ala Pro Ser Gly Cys Pro Pro Asp Ser Asp Val
 1 5 10 15

Glu Ser

<210> 1524
 <211> 15
 <212> PRT
 <213> Hepatitis C virus

<400> 1524

Ser Gly Cys Pro Pro Asp Ser Asp Val Glu Ser Tyr Ser Ser Met
 1 5 10 15

<210> 1525
 <211> 14
 <212> PRT

<213> Hepatitis C virus

<400> 1525

Pro Asp Ser Asp Val Glu Ser Tyr Ser Ser Met Pro Pro Leu
1 5 10

<210> 1526

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1526

Asp Val Glu Ser Tyr Ser Ser Met Pro Pro Leu Glu Gly Glu Pro Gly
1 5 10 15

Asp Pro

<210> 1527

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1527

Met Pro Pro Leu Glu Gly Glu Pro Gly Asp Pro Asp Leu Ser Asp Gly
1 5 10 15

Ser Trp

<210> 1528

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1528

Pro Gly Asp Pro Asp Leu Ser Asp Gly Ser Trp Ser Thr Val Ser Ser
1 5 10 15

Gly Ala

<210> 1529

<211> 15

<212> PRT

<213> Hepatitis C virus

<400> 1529

Asp Gly Ser Trp Ser Thr Val Ser Ser Gly Ala Asp Thr Glu Asp

1 5 10 15

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<210> 1530
<211> 13
<212> PRT
<213> Hepatitis C virus
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<400> 1530

Thr Val Ser Ser Gly Ala Asp Thr Glu Asp Val Val Cys
1 5 10

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<210> 1531
<211> 15
<212> PRT
<213> Hepatitis C virus
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<400> 1531

Ser Ser Gly Ala Asp Thr Glu Asp Val Val Cys Cys Ser Met Ser
1 5 10 15

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<210> 1532
<211> 14
<212> PRT
<213> Hepatitis C virus
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<400> 1532

Asp Thr Glu Asp Val Val Cys Cys Ser Met Ser Tyr Ser Trp
1 5 10

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<210> 1533
<211> 15
<212> PRT
<213> Hepatitis C virus
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<400> 1533

Asp Val Val Cys Cys Ser Met Ser Tyr Ser Trp Thr Gly Ala Leu
1 5 10 15

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<210> 1534
<211> 14
<212> PRT
<213> Hepatitis C virus
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<400> 1534

Cys Ser Met Ser Tyr Ser Trp Thr Gly Ala Leu Val Thr Pro
1 5 10

<210>	1535
<211>	18
<212>	PRT

<213> Hepatitis C virus

<400> 1535

Ser Tyr Ser Trp Thr Gly Ala Leu Val Thr Pro Cys Ala Ala Glu Glu
1 5 10 15

Gln Lys

<210> 1536

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1536

Leu Val Thr Pro Cys Ala Ala Glu Glu Gln Lys Leu Pro Ile Asn Ala
1 5 10 15

Leu Ser

<210> 1537

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1537

Glu Glu Gln Lys Leu Pro Ile Asn Ala Leu Ser Asn Ser Leu Leu Arg
1 5 10 15

His His

<210> 1538

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1538

Asn Ala Leu Ser Asn Ser Leu Leu Arg His His Asn Leu Val Tyr Ser
1 5 10 15

Thr Thr

<210> 1539

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1539

Leu Arg His His Asn Leu Val Tyr Ser Thr Thr Ser Arg Ser Ala Cys
1 5 10 15

Gln Arg

<210> 1540

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1540

Tyr Ser Thr Thr Ser Arg Ser Ala Cys Gln Arg Gln Lys Lys Val Thr
1 5 10 15

Phe Asp

<210> 1541

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1541

Ala Cys Gln Arg Gln Lys Lys Val Thr Phe Asp Arg Leu Gln Val Leu
1 5 10 15

Asp Ser

<210> 1542

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1542

Val Thr Phe Asp Arg Leu Gln Val Leu Asp Ser His Tyr Gln Asp Val
1 5 10 15

Leu Lys

<210> 1543

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1543

Val Leu Asp Ser His Tyr Gln Asp Val Leu Lys Glu Val Lys Ala Ala
1 5 10 15

Ala Ser

<210> 1544

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1544

Asp Val Leu Lys Glu Val Lys Ala Ala Ala Ser Lys Val Lys Ala Asn
1 5 10 15

Leu Leu

<210> 1545

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1545

Ala Ala Ala Ser Lys Val Lys Ala Asn Leu Leu Ser Val Glu Glu Ala
1 5 10 15

Cys Ser

<210> 1546

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1546

Ala Asn Leu Leu Ser Val Glu Glu Ala Cys Ser Leu Thr Pro Pro His
1 5 10 15

Ser Ala

<210> 1547

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1547

Glu Ala Cys Ser Leu Thr Pro Pro His Ser Ala Lys Ser Lys Phe Gly
 1 5 10 15

Tyr Gly

<210> 1548
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1548

Pro His Ser Ala Lys Ser Lys Phe Gly Tyr Gly Ala Lys Asp Val Arg
 1 5 10 15

Cys His

<210> 1549
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1549

Phe Gly Tyr Gly Ala Lys Asp Val Arg Cys His Ala Arg Lys Ala Val
 1 5 10 15

Ala His

<210> 1550
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1550

Val Arg Cys His Ala Arg Lys Ala Val Ala His Ile Asn Ser Val Trp
 1 5 10 15

Lys Asp

<210> 1551
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1551

Ala Val Ala His Ile Asn Ser Val Trp Lys Asp Leu Leu Glu Asp Ser
 1 5 10 15

Val Thr

<210> 1552
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1552

Val Trp Lys Asp Leu Leu Glu Asp Ser Val Thr Pro Ile Asp Thr Thr
 1 5 10 15

Ile Met

<210> 1553
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1553

Asp Ser Val Thr Pro Ile Asp Thr Thr Ile Met Ala Lys Asn Glu Val
 1 5 10 15

Phe Cys

<210> 1554
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1554

Thr Thr Ile Met Ala Lys Asn Glu Val Phe Cys Val Gln Pro Glu Lys
 1 5 10 15

Gly Gly

<210> 1555
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1555

Glu Val Phe Cys Val Gln Pro Glu Lys Gly Gly Arg Lys Pro Ala Arg

Leu Ile

Gly Val

Met Ala

Ser Lys

Met Gly

<210> 1560
 <211> 18
 <212> PRT
 <213> Hepatitis C virus
 <400> 1560

Val Val Ser Lys Leu Pro Leu Ala Val Met Gly Ser Ser Tyr Gly Phe
 1 5 10 15

Gln Tyr

<210> 1561
 <211> 18
 <212> PRT
 <213> Hepatitis C virus
 <400> 1561

Ala Val Met Gly Ser Ser Tyr Gly Phe Gln Tyr Ser Pro Gly Gln Arg
 1 5 10 15

Val Glu

<210> 1562
 <211> 18
 <212> PRT
 <213> Hepatitis C virus
 <400> 1562

Gly Phe Gln Tyr Ser Pro Gly Gln Arg Val Glu Phe Leu Val Gln Ala
 1 5 10 15

Trp Lys

<210> 1563
 <211> 18
 <212> PRT
 <213> Hepatitis C virus
 <400> 1563

Gln Arg Val Glu Phe Leu Val Gln Ala Trp Lys Ser Lys Lys Thr Pro
 1 5 10 15

Met Gly

<210> 1564
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1564

Gln Ala Trp Lys Ser Lys Lys Thr Pro Met Gly Phe Ser Tyr Asp Thr
 1 5 10 15

Arg Cys

<210> 1565
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1565

Thr Pro Met Gly Phe Ser Tyr Asp Thr Arg Cys Phe Asp Ser Thr Val
 1 5 10 15

Thr Glu

<210> 1566
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1566

Asp Thr Arg Cys Phe Asp Ser Thr Val Thr Glu Ser Asp Ile Arg Thr
 1 5 10 15

Glu Glu

<210> 1567
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1567

Thr Val Thr Glu Ser Asp Ile Arg Thr Glu Glu Ala Ile Tyr Gln Cys
 1 5 10 15

Cys Asp

<210> 1568
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1568

Arg Thr Glu Glu Ala Ile Tyr Gln Cys Cys Asp Leu Asp Pro Gln Ala
 1 5 10 15

Arg Val

<210> 1569
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1569

Gln Cys Cys Asp Leu Asp Pro Gln Ala Arg Val Ala Ile Lys Ser Leu
 1 5 10 15

Thr Glu

<210> 1570
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1570

Gln Ala Arg Val Ala Ile Lys Ser Leu Thr Glu Arg Leu Tyr Val Gly
 1 5 10 15

Gly Pro

<210> 1571
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1571

Ser Leu Thr Glu Arg Leu Tyr Val Gly Gly Pro Leu Thr Asn Ser Arg
 1 5 10 15

Gly Glu

<210> 1572
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1572

Val Gly Gly Pro Leu Thr Asn Ser Arg Gly Glu Asn Cys Gly Tyr Arg
 1 5 10 15

Arg Cys

<210> 1573
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1573

Ser Arg Gly Glu Asn Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val
 1 5 10 15

Leu Thr

<210> 1574
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1574

Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Thr Thr Ser Cys Gly Asn
 1 5 10 15

Thr Leu

<210> 1575
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1575

Gly Val Leu Thr Thr Ser Cys Gly Asn Thr Leu Thr Cys Tyr Ile Lys
 1 5 10 15

Ala Arg

<210> 1576
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1576

Gly Asn Thr Leu Thr Cys Tyr Ile Lys Ala Arg Ala Ala Cys Arg Ala
1 5 10 15

Ala Gly

<210> 1577
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1577

Ile Lys Ala Arg Ala Ala Cys Arg Ala Ala Gly Leu Gln Asp Cys Thr
1 5 10 15

Met Leu

<210> 1578
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1578

Arg Ala Ala Gly Leu Gln Asp Cys Thr Met Leu Val Cys Gly Asp Asp
1 5 10 15

Leu Val

<210> 1579
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1579

Cys Thr Met Leu Val Cys Gly Asp Asp Leu Val Val Ile Cys Glu Ser
1 5 10 15

Ala Gly

<210> 1580
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1580

Asp Asp Leu Val Val Ile Cys Glu Ser Ala Gly Val Gln Glu Asp Ala
1 5 10 15

Ala Ser

<210> 1581
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1581

Glu Ser Ala Gly Val Gln Glu Asp Ala Ala Ser Leu Arg Ala Phe Thr
1 5 10 15

Glu Ala

<210> 1582
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1582

Asp Ala Ala Ser Leu Arg Ala Phe Thr Glu Ala Met Thr Arg Tyr Ser
1 5 10 15

Ala Pro

<210> 1583
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1583

Phe Thr Glu Ala Met Thr Arg Tyr Ser Ala Pro Pro Gly Asp Pro Pro
1 5 10 15

Gln Pro

<210> 1584
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1584

Tyr Ser Ala Pro Pro Gly Asp Pro Pro Gln Pro Glu Tyr Asp Leu Glu
 1 5 10 15

Leu Ile

<210> 1585
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1585

Pro Pro Gln Pro Glu Tyr Asp Leu Glu Leu Ile Thr Ser Cys Ser Ser
 1 5 10 15

Asn Val

<210> 1586
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1586

Leu Glu Leu Ile Thr Ser Cys Ser Ser Asn Val Ser Val Ala His Asp
 1 5 10 15

Gly Ala

<210> 1587
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1587

Ser Ser Asn Val Ser Val Ala His Asp Gly Ala Gly Lys Arg Val Tyr
 1 5 10 15

Tyr Leu

<210> 1588

<211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1588

His Asp Gly Ala Gly Lys Arg Val Tyr Tyr Leu Thr Arg Asp Pro Thr
 1 5 10 15

Thr Pro

<210> 1589
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1589

Val Tyr Tyr Leu Thr Arg Asp Pro Thr Thr Pro Leu Ala Arg Ala Ala
 1 5 10 15

Trp Glu

<210> 1590
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1590

Pro Thr Thr Pro Leu Ala Arg Ala Ala Trp Glu Thr Ala Arg His Thr
 1 5 10 15

Pro Val

<210> 1591
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1591

Ala Ala Trp Glu Thr Ala Arg His Thr Pro Val Asn Ser Trp Leu Gly
 1 5 10 15

Asn Ile

<210> 1592
 <211> 18

<212> PRT
<213> Hepatitis C virus
<400> 1592

His Thr Pro Val Asn Ser Trp Leu Gly Asn Ile Ile Met Phe Ala Pro
1 5 10 15

Thr Leu

<210> 1593
<211> 18
<212> PRT
<213> Hepatitis C virus
<400> 1593

Leu Gly Asn Ile Ile Met Phe Ala Pro Thr Leu Trp Ala Arg Met Ile
1 5 10 15

Leu Met

<210> 1594
<211> 18
<212> PRT
<213> Hepatitis C virus
<400> 1594

Ala Pro Thr Leu Trp Ala Arg Met Ile Leu Met Thr His Phe Phe Ser
1 5 10 15

Val Leu

<210> 1595
<211> 18
<212> PRT
<213> Hepatitis C virus
<400> 1595

Met Ile Leu Met Thr His Phe Phe Ser Val Leu Ile Ala Arg Asp Gln
1 5 10 15

Leu Glu

<210> 1596
<211> 18
<212> PRT

<213> Hepatitis C virus

<400> 1596

Phe Ser Val Leu Ile Ala Arg Asp Gln Leu Glu Gln Ala Leu Asn Cys
 1 5 10 15

Glu Ile

<210> 1597

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1597

Asp Gln Leu Glu Gln Ala Leu Asn Cys Glu Ile Tyr Gly Ala Cys Tyr
 1 5 10 15

Ser Ile

<210> 1598

<211> 15

<212> PRT

<213> Hepatitis C virus

<400> 1598

Asn Cys Glu Ile Tyr Gly Ala Cys Tyr Ser Ile Glu Pro Leu Asp
 1 5 10 15

<210> 1599

<211> 14

<212> PRT

<213> Hepatitis C virus

<400> 1599

Tyr Gly Ala Cys Tyr Ser Ile Glu Pro Leu Asp Leu Pro Pro
 1 5 10

<210> 1600

<211> 18

<212> PRT

<213> Hepatitis C virus

<400> 1600

Cys Tyr Ser Ile Glu Pro Leu Asp Leu Pro Pro Ile Ile Gln Arg Leu
 1 5 10 15

His Gly

<210> 1601
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1601

Asp Leu Pro Pro Ile Ile Gln Arg Leu His Gly Leu Ser Ala Phe Ser
1 5 10 15

Leu His

<210> 1602
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1602

Arg Leu His Gly Leu Ser Ala Phe Ser Leu His Ser Tyr Ser Pro Gly
1 5 10 15

Glu Ile

<210> 1603
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1603

Phe Ser Leu His Ser Tyr Ser Pro Gly Glu Ile Asn Arg Val Ala Ala
1 5 10 15

Cys Leu

<210> 1604
<211> 18
<212> PRT
<213> Hepatitis C virus

<400> 1604

Pro Gly Glu Ile Asn Arg Val Ala Ala Cys Leu Arg Lys Leu Gly Val
1 5 10 15

Pro Pro

<210> 1605
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1605

Ala Ala Cys Leu Arg Lys Leu Gly Val Pro Pro Leu Arg Ala Trp Arg
 1 5 10 15

His Arg

<210> 1606
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1606

Gly Val Pro Pro Leu Arg Ala Trp Arg His Arg Ala Arg Ser Val Arg
 1 5 10 15

Ala Arg

<210> 1607
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1607

Trp Arg His Arg Ala Arg Ser Val Arg Ala Arg Leu Leu Ser Arg Gly
 1 5 10 15

Gly Arg

<210> 1608
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1608

Val Arg Ala Arg Leu Leu Ser Arg Gly Gly Arg Ala Ala Ile Cys Gly
 1 5 10 15

Lys Tyr

<210> 1609
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1609

Arg Gly Gly Arg Ala Ala Ile Cys Gly Lys Tyr Leu Phe Asn Trp Ala
 1 5 10 15

Val Arg

<210> 1610
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1610

Cys Gly Lys Tyr Leu Phe Asn Trp Ala Val Arg Thr Lys Leu Lys Leu
 1 5 10 15

Thr Pro

<210> 1611
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1611

Trp Ala Val Arg Thr Lys Leu Lys Leu Thr Pro Ile Ala Ala Ala Gly
 1 5 10 15

Arg Leu

<210> 1612
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1612

Lys Leu Thr Pro Ile Ala Ala Ala Gly Arg Leu Asp Leu Ser Gly Trp
 1 5 10 15

Phe Thr

<210> 1613
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1613

Ala Gly Arg Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser Gly
 1 5 10 15

Gly Asp

<210> 1614
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1614

Gly Trp Phe Thr Ala Gly Tyr Ser Gly Gly Asp Ile Tyr His Ser Val
 1 5 10 15

Ser His

<210> 1615
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1615

Ser Gly Gly Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp
 1 5 10 15

Phe Trp

<210> 1616
 <211> 18
 <212> PRT
 <213> Hepatitis C virus

<400> 1616

Ser Val Ser His Ala Arg Pro Arg Trp Phe Trp Phe Cys Leu Leu Leu
 1 5 10 15

Leu Ala

<210> 1617

<211> 15
 <212> PRT
 <213> Hepatitis C virus

<400> 1617

Arg Trp Phe Trp Phe Cys Leu Leu Leu Leu Ala Ala Gly Val Gly
 1 5 10 15

<210> 1618
 <211> 14
 <212> PRT
 <213> Hepatitis C virus

<400> 1618

Phe Cys Leu Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu
 1 5 10

<210> 1619
 <211> 15
 <212> PRT
 <213> Hepatitis C virus

<400> 1619

Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu Pro Asn Arg
 1 5 10 15

<210> 1620
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1620

Met Gly Gly Trp Ser Ser Lys Pro Arg Lys Gly Met Gly Thr Asn
 1 5 10 15

<210> 1621
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1621

Ser Ser Lys Pro Arg Lys Gly Met Gly Thr Asn Leu Ser Val Pro
 1 5 10 15

<210> 1622
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1622

Arg Lys Gly Met Gly Thr Asn Leu Ser Val Pro Asn Pro Leu Gly
 1 5 10 15

<210> 1623
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1623

Gly Thr Asn Leu Ser Val Pro Asn Pro Leu Gly Phe Phe Pro Asp
 1 5 10 15

<210> 1624
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1624

Ser Val Pro Asn Pro Leu Gly Phe Phe Pro Asp His Gln Leu Asp
 1 5 10 15

<210> 1625
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1625

Pro Leu Gly Phe Phe Pro Asp His Gln Leu Asp Pro Ala Phe Gly
 1 5 10 15

<210> 1626
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1626

Phe Pro Asp His Gln Leu Asp Pro Ala Phe Gly Ala Asn Ser Asn
 1 5 10 15

<210> 1627
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1627

Gln Leu Asp Pro Ala Phe Gly Ala Asn Ser Asn Asn Pro Asp Trp
 1 5 10 15

<210> 1628
 <211> 15

<212> PRT
 <213> Hepatitis B virus

<400> 1628

Ala Phe Gly Ala Asn Ser Asn Asn Pro Asp Trp Asp Phe Asn Pro
 1 5 10 15

<210> 1629
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1629

Asn Ser Asn Asn Pro Asp Trp Asp Phe Asn Pro Ile Lys Asp His
 1 5 10 15

<210> 1630
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1630

Pro Asp Trp Asp Phe Asn Pro Ile Lys Asp His Trp Pro Ala Ala
 1 5 10 15

<210> 1631
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1631

Phe Asn Pro Ile Lys Asp His Trp Pro Ala Ala Asn Gln Val Gly
 1 5 10 15

<210> 1632
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1632

Lys Asp His Trp Pro Ala Ala Asn Gln Val Gly Val Gly Ala Phe
 1 5 10 15

<210> 1633
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1633

Pro Ala Ala Asn Gln Val Gly Val Gly Ala Phe Gly Pro Gly Leu

<213> Hepatitis B virus

<400> 1639

Trp Ser Pro Gln Ala Gln Gly Ile Leu Thr Thr Val Ser Thr Ile
1 5 10 15

<210> 1640

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1640

Ala Gln Gly Ile Leu Thr Thr Val Ser Thr Ile Pro Pro Pro Ala
1 5 10 15

<210> 1641

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1641

Leu Thr Thr Val Ser Thr Ile Pro Pro Pro Ala Ser Thr Asn Arg
1 5 10 15

<210> 1642

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1642

Ser Thr Ile Pro Pro Pro Ala Ser Thr Asn Arg Gln Ser Gly Arg
1 5 10 15

<210> 1643

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1643

Pro Pro Ala Ser Thr Asn Arg Gln Ser Gly Arg Gln Pro Thr Pro
1 5 10 15

<210> 1644

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1644

Thr Asn Arg Gln Ser Gly Arg Gln Pro Thr Pro Ile Ser Pro Pro
1 5 10 15

<210> 1645
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1645

Ser Gly Arg Gln Pro Thr Pro Ile Ser Pro Pro Leu Arg Asp Ser
 1 5 10 15

<210> 1646
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1646

Pro Thr Pro Ile Ser Pro Pro Leu Arg Asp Ser His Pro Gln Ala
 1 5 10 15

<210> 1647
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1647

Ser Pro Pro Leu Arg Asp Ser His Pro Gln Ala Met Gln Trp Asn
 1 5 10 15

<210> 1648
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1648

Arg Asp Ser His Pro Gln Ala Met Gln Trp Asn Ser Thr Ala Phe
 1 5 10 15

<210> 1649
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1649

Pro Gln Ala Met Gln Trp Asn Ser Thr Ala Phe His Gln Ala Leu
 1 5 10 15

<210> 1650
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1650

Gln Trp Asn Ser Thr Ala Phe His Gln Ala Leu Gln Asp Pro Arg
 1 5 10 15

<210> 1651

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1651

Thr Ala Phe His Gln Ala Leu Gln Asp Pro Arg Val Arg Gly Leu
 1 5 10 15

<210> 1652

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1652

Gln Ala Leu Gln Asp Pro Arg Val Arg Gly Leu Tyr Leu Pro Ala
 1 5 10 15

<210> 1653

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1653

Asp Pro Arg Val Arg Gly Leu Tyr Leu Pro Ala Gly Gly Ser Ser
 1 5 10 15

<210> 1654

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1654

Arg Gly Leu Tyr Leu Pro Ala Gly Gly Ser Ser Ser Gly Thr Val
 1 5 10 15

<210> 1655

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1655

Leu Pro Ala Gly Gly Ser Ser Ser Gly Thr Val Asn Pro Ala Pro
 1 5 10 15

<210> 1656
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1656

Gly Ser Ser Ser Gly Thr Val Asn Pro Ala Pro Asn Ile Ala Ser
1 5 10 15

<210> 1657
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1657

Gly Thr Val Asn Pro Ala Pro Asn Ile Ala Ser His Ile Ser Ser
1 5 10 15

<210> 1658
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1658

Pro Ala Pro Asn Ile Ala Ser His Ile Ser Ser Ile Ser Ala Arg
1 5 10 15

<210> 1659
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1659

Ile Ala Ser His Ile Ser Ser Ile Ser Ala Arg Thr Gly Asp Pro
1 5 10 15

<210> 1660
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1660

Ile Ser Ser Ile Ser Ala Arg Thr Gly Asp Pro Val Thr Asn Met
1 5 10 15

<210> 1661
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1661

Ser	Ala	Arg	Thr	Gly	Asp	Pro	Val	Thr	Asn	Met	Glu	Asn	Ile	Thr
1				5					10					15

<210> 1662

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1662

Gly	Asp	Pro	Val	Thr	Asn	Met	Glu	Asn	Ile	Thr	Ser	Gly	Phe	Leu
1				5					10					15

<210> 1663

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1663

Thr	Asn	Met	Glu	Asn	Ile	Thr	Ser	Gly	Phe	Leu	Gly	Pro	Leu	Leu
1				5					10					15

<210> 1664

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1664

Asn	Ile	Thr	Ser	Gly	Phe	Leu	Gly	Pro	Leu	Leu	Val	Leu	Gln	Ala
1				5				10						15

<210> 1665

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1665

Gly	Phe	Leu	Gly	Pro	Leu	Leu	Val	Leu	Gln	Ala	Gly	Phe	Phe	Leu
1				5					10					15

<210> 1666

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1666

Pro	Leu	Leu	Val	Leu	Gln	Ala	Gly	Phe	Phe	Leu	Leu	Thr	Arg	Ile
1				5					10					15

<210> 1667
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1667

Leu Gln Ala Gly Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro
 1 5 10 15

<210> 1668
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1668

Phe Phe Leu Leu Thr Arg Ile Leu Thr Ile Pro Gln Ser Leu Asp
 1 5 10 15

<210> 1669
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1669

Thr Arg Ile Leu Thr Ile Pro Gln Ser Leu Asp Ser Trp Trp Thr
 1 5 10 15

<210> 1670
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1670

Thr Ile Pro Gln Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe
 1 5 10 15

<210> 1671
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1671

Ser Leu Asp Ser Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Ser
 1 5 10 15

<210> 1672
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1672

Trp Trp Thr Ser Leu Asn Phe Leu Gly Gly Ser Pro Val Cys Leu
 1 5 10 15

<210> 1673
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1673

Leu Asn Phe Leu Gly Gly Ser Pro Val Cys Leu Gly Gln Asn Ser
 1 5 10 15

<210> 1674
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1674

Gly Gly Ser Pro Val Cys Leu Gly Gln Asn Ser Gln Ser Pro Thr
 1 5 10 15

<210> 1675
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1675

Val Cys Leu Gly Gln Asn Ser Gln Ser Pro Thr Ser Asn His Ser
 1 5 10 15

<210> 1676
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1676

Gln Asn Ser Gln Ser Pro Thr Ser Asn His Ser Pro Thr Ser Cys
 1 5 10 15

<210> 1677
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1677

Ser Pro Thr Ser Asn His Ser Pro Thr Ser Cys Pro Pro Ile Cys
 1 5 10 15

<210> 1678

<211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1678

Asn	His	Ser	Pro	Thr	Ser	Cys	Pro	Pro	Ile	Cys	Pro	Gly	Tyr	Arg
1				5					10					15

<210> 1679
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1679

Thr	Ser	Cys	Pro	Pro	Ile	Cys	Pro	Gly	Tyr	Arg	Trp	Met	Cys	Leu
1				5					10					15

<210> 1680
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1680

Pro	Ile	Cys	Pro	Gly	Tyr	Arg	Trp	Met	Cys	Leu	Arg	Arg	Phe	Ile
1				5					10					15

<210> 1681
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1681

Gly	Tyr	Arg	Trp	Met	Cys	Leu	Arg	Arg	Phe	Ile	Ile	Phe	Leu	Phe
1				5					10					15

<210> 1682
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1682

Met	Cys	Leu	Arg	Arg	Phe	Ile	Ile	Phe	Leu	Phe	Ile	Leu	Leu	Leu
1				5					10					15

<210> 1683
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1683

Arg Phe Ile Ile Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile Phe
 1 5 10 15

<210> 1684
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1684

Phe Leu Phe Ile Leu Leu Leu Cys Leu Ile Phe Leu Leu Val Leu
 1 5 10 15

<210> 1685
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1685

Leu Leu Leu Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln
 1 5 10 15

<210> 1686
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1686

Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro
 1 5 10 15

<210> 1687
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1687

Leu Val Leu Leu Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu
 1 5 10 15

<210> 1688
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1688

Asp Tyr Gln Gly Met Leu Pro Val Cys Pro Leu Ile Pro Gly Ser
 1 5 10 15

<210> 1689
 <211> 15

<212> PRT
 <213> Hepatitis B virus

<400> 1689

Met Leu Pro Val Cys Pro Leu Ile Pro Gly Ser Thr Thr Thr Ser
 1 5 10 15

<210> 1690
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1690

Cys Pro Leu Ile Pro Gly Ser Thr Thr Thr Ser Thr Gly Pro Cys
 1 5 10 15

<210> 1691
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1691

Pro Gly Ser Thr Thr Thr Ser Thr Gly Pro Cys Lys Thr Cys Thr
 1 5 10 15

<210> 1692
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1692

Thr Thr Ser Thr Gly Pro Cys Lys Thr Cys Thr Thr Pro Ala Gln
 1 5 10 15

<210> 1693
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1693

Gly Pro Cys Lys Thr Cys Thr Thr Pro Ala Gln Gly Asn Ser Met
 1 5 10 15

<210> 1694
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1694

Thr Cys Thr Thr Pro Ala Gln Gly Asn Ser Met Phe Pro Ser Cys

<210>	1700
<211>	15
<212>	PRT

<213> Hepatitis B virus

<400> 1700

Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp Ala Phe Ala Lys Tyr
1 5 10 15

<210> 1701

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1701

Pro Ile Pro Ser Ser Trp Ala Phe Ala Lys Tyr Leu Trp Glu Trp
1 5 10 15

<210> 1702

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1702

Ser Trp Ala Phe Ala Lys Tyr Leu Trp Glu Trp Ala Ser Val Arg
1 5 10 15

<210> 1703

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1703

Ala Lys Tyr Leu Trp Glu Trp Ala Ser Val Arg Phe Ser Trp Leu
1 5 10 15

<210> 1704

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1704

Trp Glu Trp Ala Ser Val Arg Phe Ser Trp Leu Ser Leu Leu Val
1 5 10 15

<210> 1705

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1705

Ser Val Arg Phe Ser Trp Leu Ser Leu Leu Val Pro Phe Val Gln
1 5 10 15

<210> 1706
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1706

Ser Trp Leu Ser Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly
1 5 10 15

<210> 1707
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1707

Leu Leu Val Pro Phe Val Gln Trp Phe Val Gly Leu Ser Pro Thr
1 5 10 15

<210> 1708
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1708

Phe Val Gln Trp Phe Val Gly Leu Ser Pro Thr Val Trp Leu Ser
1 5 10 15

<210> 1709
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1709

Phe Val Gly Leu Ser Pro Thr Val Trp Leu Ser Ala Ile Trp Met
1 5 10 15

<210> 1710
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1710

Ser Pro Thr Val Trp Leu Ser Ala Ile Trp Met Met Trp Tyr Trp
1 5 10 15

<210> 1711
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1711

Trp	Leu	Ser	Ala	Ile	Trp	Met	Met	Trp	Tyr	Trp	Gly	Pro	Ser	Leu
1				5					10					15

<210> 1712

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1712

Ile	Trp	Met	Met	Trp	Tyr	Trp	Gly	Pro	Ser	Leu	Tyr	Ser	Ile	Val
1				5					10					15

<210> 1713

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1713

Trp	Tyr	Trp	Gly	Pro	Ser	Leu	Tyr	Ser	Ile	Val	Ser	Pro	Phe	Ile
1				5					10					15

<210> 1714

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1714

Pro	Ser	Leu	Tyr	Ser	Ile	Val	Ser	Pro	Phe	Ile	Pro	Leu	Leu	Pro
1				5					10					15

<210> 1715

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1715

Ser	Ile	Val	Ser	Pro	Phe	Ile	Pro	Leu	Leu	Pro	Ile	Phe	Phe	Cys
1				5					10					15

<210> 1716

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1716

Pro	Phe	Ile	Pro	Leu	Leu	Pro	Ile	Phe	Phe	Cys	Leu	Trp	Val	Tyr
1				5					10					15

<210> 1717
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1717

Phe Ile Pro Leu Leu Pro Ile Phe Phe Cys Leu Trp Val Tyr Ile
 1 5 10 15

<210> 1718
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1718

Met Ala Ala Arg Leu Tyr Cys Gln Leu Asp Pro Ser Arg Asp Val
 1 5 10 15

<210> 1719
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1719

Leu Tyr Cys Gln Leu Asp Pro Ser Arg Asp Val Leu Cys Leu Arg
 1 5 10 15

<210> 1720
 <211> 15
 <212> PRT
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Cys Leu Arg Pro Val Gly Ala Glu Ser Arg Gly Arg Pro Leu Ser
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Val Gly Ala Glu Ser Arg Gly Arg Pro Leu Ser Gly Pro Leu Gly
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Ser Arg Gly Arg Pro Leu Ser Gly Pro Leu Gly Thr Leu Ser Ser
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Pro Leu Ser Gly Pro Leu Gly Thr Leu Ser Ser Pro Ser Pro Ser
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Pro Leu Gly Thr Leu Ser Ser Pro Ser Pro Ser Ala Val Pro Ala
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Leu Ser Ser Pro Ser Pro Ser Ala Val Pro Ala Asp His Gly Ala
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Ser Pro Ser Ala Val Pro Ala Asp His Gly Ala His Leu Ser Leu
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Val Pro Ala Asp His Gly Ala His Leu Ser Leu Arg Gly Leu Pro
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Phe Thr Ser Ala Arg Cys Met Glu Thr Thr Val Asn Ala His Gln
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Arg Cys Met Glu Thr Thr Val Asn Ala His Gln Ile Leu Pro Lys
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Thr Thr Val Asn Ala His Gln Ile Leu Pro Lys Val Leu His Lys
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Glu Ala Tyr Phe Lys Asp Cys Val Phe Lys Asp Trp Glu Glu Leu
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Lys Asp Cys Val Phe Lys Asp Trp Glu Glu Leu Gly Glu Glu Ile
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Phe Lys Asp Trp Glu Glu Leu Gly Glu Glu Ile Arg Leu Met Ile
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Glu Glu Leu Gly Glu Glu Ile Arg Leu Met Ile Phe Val Leu Gly
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Glu Glu Ile Arg Leu Met Ile Phe Val Leu Gly Gly Cys Arg His
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Leu Met Ile Phe Val Leu Gly Gly Cys Arg His Lys Leu Val Cys
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Val Leu Gly Gly Cys Arg His Lys Leu Val Cys Ala Pro Ala Pro
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Cys Arg His Lys Leu Val Cys Ala Pro Ala Pro Cys Asn Phe Phe
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Lys Leu Val Cys Ala Pro Ala Pro Cys Asn Phe Phe Thr Ser Ala
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Met Pro Leu Ser Tyr Gln His Phe Arg Lys Leu Leu Leu Leu Asp
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Tyr Gln His Phe Arg Lys Leu Leu Leu Leu Asp Asp Gly Thr Glu

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Arg Leu Ala Asp Ala Asp Leu Asn Arg Arg Val Ala Glu Asp Leu
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Ala Asp Leu Asn Arg Arg Val Ala Glu Asp Leu Asn Leu Gly Asn
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Arg Arg Val Ala Glu Asp Leu Asn Leu Gly Asn Leu Asn Val Ser
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Leu Gly Asn Leu Asn Val Ser Ile Pro Trp Thr His Lys Val Gly
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Asn Val Ser Ile Pro Trp Thr His Lys Val Gly Asn Phe Thr Gly
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Pro Trp Thr His Lys Val Gly Asn Phe Thr Gly Leu Tyr Ser Ser
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Lys Val Gly Asn Phe Thr Gly Leu Tyr Ser Ser Thr Val Pro Ile
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Phe Thr Gly Leu Tyr Ser Ser Thr Val Pro Ile Phe Asn Pro Glu
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Tyr Ser Ser Thr Val Pro Ile Phe Asn Pro Glu Trp Gln Thr Pro
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Val Pro Ile Phe Asn Pro Glu Trp Gln Thr Pro Ser Phe Pro Lys
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Gln	Thr	Pro	Ser	Phe	Pro	Lys	Ile	His	Leu	Gln	Glu	Asp	Ile	Ile
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Asp	Ile	Ile	Asn	Arg	Cys	Gln	Gln	Phe	Val	Gly	Pro	Leu	Thr	Val
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Arg	Cys	Gln	Gln	Phe	Val	Gly	Pro	Leu	Thr	Val	Asn	Glu	Lys	Arg
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Phe Val Gly Pro Leu Thr Val Asn Glu Lys Arg Arg Leu Lys Leu
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Leu Thr Val Asn Glu Lys Arg Arg Leu Lys Leu Ile Met Pro Ala
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<400> 1780

Glu Lys Arg Arg Leu Lys Leu Ile Met Pro Ala Arg Phe Tyr Pro
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Leu Lys Leu Ile Met Pro Ala Arg Phe Tyr Pro Thr Thr Lys Tyr
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Met Pro Ala Arg Phe Tyr Pro Thr Thr Lys Tyr Leu Pro Leu Asp
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Phe	Tyr	Pro	Thr	Thr	Lys	Tyr	Leu	Pro	Leu	Asp	Lys	Gly	Ile	Lys
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Thr Arg His Tyr Leu His Thr Leu Trp Lys Ala Gly Ile Leu Tyr
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Leu His Thr Leu Trp Lys Ala Gly Ile Leu Tyr Lys Arg Glu Thr
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Trp Lys Ala Gly Ile Leu Tyr Lys Arg Glu Thr Thr Arg Ser Ala
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Ile Leu Tyr Lys Arg Glu Thr Thr Arg Ser Ala Ser Phe Cys Gly
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Arg Glu Thr Thr Arg Ser Ala Ser Phe Cys Gly Ser Pro Tyr Ser
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Phe Cys Gly Ser Pro Tyr Ser Trp Glu Gln Glu Leu Gln His Gly
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Pro Tyr Ser Trp Glu Gln Glu Leu Gln His Gly Arg Leu Val Ile
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Glu Gln Glu Leu Gln His Gly Arg Leu Val Ile Lys Thr Ser Gln
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Gln His Gly Arg Leu Val Ile Lys Thr Ser Gln Arg His Gly Asp
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<211> 15
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Leu Val Ile Lys Thr Ser Gln Arg His Gly Asp Glu Ser Phe Cys
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His Gly Asp Glu Ser Phe Cys Ser Gln Pro Ser Gly Ile Leu Ser
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Ser Ser Val Gly Pro Cys Ile Arg Ser Gln Leu Lys Gln Ser Arg
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Ser Gln Leu Lys Gln Ser Arg Leu Gly Leu Gln Pro His Gln Gly
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Gln Ser Arg Leu Gly Leu Gln Pro His Gln Gly Pro Leu Ala Ser
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<400> 1810

Gly Leu Gln Pro His Gln Gly Pro Leu Ala Ser Ser Gln Pro Gly
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His Gln Gly Pro Leu Ala Ser Ser Gln Pro Gly Arg Ser Gly Ser
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Leu Ala Ser Ser Gln Pro Gly Arg Ser Gly Ser Ile Arg Ala Arg
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<400> 1813

Gln Pro Gly Arg Ser Gly Ser Ile Arg Ala Arg Ala His Pro Ser
 1 5 10 15

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Ser Gly Ser Ile Arg Ala Arg Ala His Pro Ser Thr Arg Arg Tyr
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<210> 1815
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Arg Ala Arg Ala His Pro Ser Thr Arg Arg Tyr Phe Gly Val Glu
 1 5 10 15

<210> 1816
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His Pro Ser Thr Arg Arg Tyr Phe Gly Val Glu Pro Ser Gly Ser

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1           5              10             15
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Ser Gly Ser Gly His Ile Asp His Ser Val Asn Asn Ser Ser Ser
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Ser Val Asn Asn Ser Ser Ser Cys Leu His Gln Ser Ala Val Arg
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Leu	His	Gln	Ser	Ala	Val	Arg	Lys	Ala	Ala	Tyr	Ser	His	Leu	Ser
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Ala	Val	Arg	Lys	Ala	Ala	Tyr	Ser	His	Leu	Ser	Thr	Ser	Lys	Arg
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His	Leu	Ser	Thr	Ser	Lys	Arg	Gln	Ser	Ser	Ser	Gly	His	Ala	Val
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Ser	Lys	Arg	Gln	Ser	Ser	Ser	Gly	His	Ala	Val	Glu	Phe	His	Cys
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Ser Ser Ser Gly His Ala Val Glu Phe His Cys Leu Pro Pro Ser
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<400> 1829

His Ala Val Glu Phe His Cys Leu Pro Pro Ser Ser Ala Gly Ser
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Phe His Cys Leu Pro Pro Ser Ser Ala Gly Ser Gln Ser Gln Gly
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<400> 1831

Pro Pro Ser Ser Ala Gly Ser Gln Ser Gln Gly Ser Val Ser Ser
 1 5 10 15

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<400> 1832

Ala Gly Ser Gln Ser Gln Gly Ser Val Ser Ser Cys Trp Trp Leu
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<400> 1833

Ser Gln Gly Ser Val Ser Ser Cys Trp Trp Leu Gln Phe Arg Asn
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Val Ser Ser Cys Trp Trp Leu Gln Phe Arg Asn Ser Lys Pro Cys
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Trp Trp Leu Gln Phe Arg Asn Ser Lys Pro Cys Ser Glu Tyr Cys
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Phe Arg Asn Ser Lys Pro Cys Ser Glu Tyr Cys Leu Ser His Leu
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<400> 1837

Lys Pro Cys Ser Glu Tyr Cys Leu Ser His Leu Val Asn Leu Arg
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Glu Tyr Cys Leu Ser His Leu Val Asn Leu Arg Glu Asp Trp Gly
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Ser His Leu Val Asn Leu Arg Glu Asp Trp Gly Pro Cys Asp Glu
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Asn Leu Arg Glu Asp Trp Gly Pro Cys Asp Glu His Gly Glu His
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Asp Trp Gly Pro Cys Asp Glu His Gly Glu His His Ile Arg Ile
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Cys Asp Glu His Gly Glu His His Ile Arg Ile Pro Arg Thr Pro
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Gly Glu His His Ile Arg Ile Pro Arg Thr Pro Ala Arg Val Thr
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Arg	Thr	Pro	Ala	Arg	Val	Thr	Gly	Gly	Val	Phe	Leu	Val	Asp	Lys
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<213> Hepatitis B virus

<400> 1846

Arg	Val	Thr	Gly	Gly	Val	Phe	Leu	Val	Asp	Lys	Asn	Pro	His	Asn
1				5					10					15

<210> 1847

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1847

Gly	Val	Phe	Leu	Val	Asp	Lys	Asn	Pro	His	Asn	Thr	Ala	Glu	Ser
1				5					10					15

<210> 1848

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1848

Val	Asp	Lys	Asn	Pro	His	Asn	Thr	Ala	Glu	Ser	Arg	Leu	Val	Val
1				5					10					15

<210> 1849

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1849

Pro	His	Asn	Thr	Ala	Glu	Ser	Arg	Leu	Val	Val	Asp	Phe	Ser	Gln
1				5					10					15

<210> 1850
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1850

Ala Glu Ser Arg Leu Val Val Asp Phe Ser Gln Phe Ser Arg Gly
 1 5 10 15

<210> 1851
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1851

Leu Val Val Asp Phe Ser Gln Phe Ser Arg Gly Ile Thr Arg Val
 1 5 10 15

<210> 1852
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1852

Phe Ser Gln Phe Ser Arg Gly Ile Thr Arg Val Ser Trp Pro Lys
 1 5 10 15

<210> 1853
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1853

Ser Arg Gly Ile Thr Arg Val Ser Trp Pro Lys Phe Ala Val Pro
 1 5 10 15

<210> 1854
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1854

Thr Arg Val Ser Trp Pro Lys Phe Ala Val Pro Asn Leu Gln Ser
 1 5 10 15

<210> 1855
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1855

Trp Pro Lys Phe Ala Val Pro Asn Leu Gln Ser Leu Thr Asn Leu
 1 5 10 15

<210> 1856
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1856

Ala Val Pro Asn Leu Gln Ser Leu Thr Asn Leu Leu Ser Ser Asn
 1 5 10 15

<210> 1857
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1857

Leu Gln Ser Leu Thr Asn Leu Leu Ser Ser Asn Leu Ser Trp Leu
 1 5 10 15

<210> 1858
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1858

Thr Asn Leu Leu Ser Ser Asn Leu Ser Trp Leu Ser Leu Asp Val
 1 5 10 15

<210> 1859
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1859

Ser Ser Asn Leu Ser Trp Leu Ser Leu Asp Val Ser Ala Ala Phe
 1 5 10 15

<210> 1860
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1860

Ser Trp Leu Ser Leu Asp Val Ser Ala Ala Phe Tyr His Ile Pro
 1 5 10 15

<210> 1861

<211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1861

Leu Asp Val Ser Ala Ala Phe Tyr His Ile Pro Leu His Pro Ala
 1 5 10 15

<210> 1862
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1862

Ala Ala Phe Tyr His Ile Pro Leu His Pro Ala Ala Met Pro His
 1 5 10 15

<210> 1863
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1863

His Ile Pro Leu His Pro Ala Ala Met Pro His Leu Leu Ile Gly
 1 5 10 15

<210> 1864
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1864

His Pro Ala Ala Met Pro His Leu Leu Ile Gly Ser Ser Gly Leu
 1 5 10 15

<210> 1865
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1865

Met Pro His Leu Leu Ile Gly Ser Ser Gly Leu Ser Arg Tyr Val
 1 5 10 15

<210> 1866
 <211> 15
 <212> PRT
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<400> 1866

Leu Ile Gly Ser Ser Gly Leu Ser Arg Tyr Val Ala Arg Leu Ser
 1 5 10 15

<210> 1867
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1867

Ser Gly Leu Ser Arg Tyr Val Ala Arg Leu Ser Ser Asn Ser Arg
 1 5 10 15

<210> 1868
 <211> 15
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 <213> Hepatitis B virus

<400> 1868

Arg Tyr Val Ala Arg Leu Ser Ser Asn Ser Arg Ile Asn Asn Asn
 1 5 10 15

<210> 1869
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1869

Arg Leu Ser Ser Asn Ser Arg Ile Asn Asn Asn Gln Tyr Gly Thr
 1 5 10 15

<210> 1870
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1870

Asn Ser Arg Ile Asn Asn Asn Gln Tyr Gly Thr Met Gln Asn Leu
 1 5 10 15

<210> 1871
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1871

Asn Asn Asn Gln Tyr Gly Thr Met Gln Asn Leu His Asp Ser Cys
 1 5 10 15

<210> 1872
 <211> 15

<212> PRT
 <213> Hepatitis B virus
 <400> 1872

Tyr Gly Thr Met Gln Asn Leu His Asp Ser Cys Ser Arg Gln Leu
 1 5 10 15

<210> 1873
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1873

Gln Asn Leu His Asp Ser Cys Ser Arg Gln Leu Tyr Val Ser Leu
 1 5 10 15

<210> 1874
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1874

Asp Ser Cys Ser Arg Gln Leu Tyr Val Ser Leu Met Leu Leu Tyr
 1 5 10 15

<210> 1875
 <211> 15
 <212> PRT
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<400> 1875

Arg Gln Leu Tyr Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly
 1 5 10 15

<210> 1876
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1876

Val Ser Leu Met Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu His
 1 5 10 15

<210> 1877
 <211> 15
 <212> PRT
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<400> 1877

Leu Leu Tyr Lys Thr Tyr Gly Trp Lys Leu His Leu Tyr Ser His

1 5 10 15

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<210> 1878
<211> 15
<212> PRT
<213> Hepatitis B virus
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<400> 1878

Thr Tyr Gly Trp Lys Leu His Leu Tyr Ser His Pro Ile Val Leu
1 5 10 15

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<210> 1879
<211> 15
<212> PRT
<213> Hepatitis B virus
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<400> 1879

Lys Leu His Leu Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys
1 5 10 15

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<210> 1880
<211> 15
<212> PRT
<213> Hepatitis B virus
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<400> 1880

Tyr Ser His Pro Ile Val Leu Gly Phe Arg Lys Ile Pro Met Gly
1 5 10 15

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<210> 1881
<211> 15
<212> PRT
<213> Hepatitis B virus
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<400> 1881

Ile Val Leu Gly Phe Arg Lys Ile Pro Met Gly Val Gly Leu Ser
1 5 10 15

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<210> 1882
<211> 15
<212> PRT
<213> Hepatitis B virus
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<400> 1882

Phe Arg Lys Ile Pro Met Gly Val Gly Leu Ser Pro Phe Leu Leu
1 5 10 15

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<210> 1883
<211> 15
<212> PRT
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<213> Hepatitis B virus

<400> 1883

Pro Met Gly Val Gly Leu Ser Pro Phe Leu Leu Ala Gln Phe Thr
1 5 10 15

<210> 1884

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1884

Gly Leu Ser Pro Phe Leu Leu Ala Gln Phe Thr Ser Ala Ile Cys
1 5 10 15

<210> 1885

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1885

Phe Leu Leu Ala Gln Phe Thr Ser Ala Ile Cys Ser Val Val Arg
1 5 10 15

<210> 1886

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1886

Gln Phe Thr Ser Ala Ile Cys Ser Val Val Arg Arg Ala Phe Pro
1 5 10 15

<210> 1887

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1887

Ala Ile Cys Ser Val Val Arg Arg Ala Phe Pro His Cys Leu Ala
1 5 10 15

<210> 1888

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1888

Val Val Arg Arg Ala Phe Pro His Cys Leu Ala Phe Ser Tyr Met
1 5 10 15

<210> 1889
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1889

Ala	Phe	Pro	His	Cys	Leu	Ala	Phe	Ser	Tyr	Met	Asp	Asp	Val	Val
1				5					10					15

<210> 1890
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 <213> Hepatitis B virus

<400> 1890

Cys	Leu	Ala	Phe	Ser	Tyr	Met	Asp	Asp	Val	Val	Leu	Gly	Ala	Lys
1				5					10					15

<210> 1891
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 <212> PRT
 <213> Hepatitis B virus

<400> 1891

Ser	Tyr	Met	Asp	Asp	Val	Val	Leu	Gly	Ala	Lys	Ser	Val	Gln	His
1				5					10					15

<210> 1892
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 <212> PRT
 <213> Hepatitis B virus

<400> 1892

Asp	Val	Val	Leu	Gly	Ala	Lys	Ser	Val	Gln	His	Arg	Glu	Ser	Leu
1				5					10					15

<210> 1893
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 <212> PRT
 <213> Hepatitis B virus

<400> 1893

Gly	Ala	Lys	Ser	Val	Gln	His	Arg	Glu	Ser	Leu	Tyr	Thr	Ala	Val
1				5					10					15

<210> 1894
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 <212> PRT
 <213> Hepatitis B virus

<400> 1894

Val	Gln	His	Arg	Glu	Ser	Leu	Tyr	Thr	Ala	Val	Thr	Asn	Phe	Leu
1				5					10					15

<210> 1895

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1895

Glu	Ser	Leu	Tyr	Thr	Ala	Val	Thr	Asn	Phe	Leu	Leu	Ser	Leu	Gly
1				5					10					15

<210> 1896

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1896

Thr	Ala	Val	Thr	Asn	Phe	Leu	Leu	Ser	Leu	Gly	Ile	His	Leu	Asn
1				5					10					15

<210> 1897

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1897

Asn	Phe	Leu	Leu	Ser	Leu	Gly	Ile	His	Leu	Asn	Pro	Asn	Lys	Thr
1				5					10					15

<210> 1898

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1898

Ser	Leu	Gly	Ile	His	Leu	Asn	Pro	Asn	Lys	Thr	Lys	Arg	Trp	Gly
1				5					10					15

<210> 1899

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1899

His	Leu	Asn	Pro	Asn	Lys	Thr	Lys	Arg	Trp	Gly	Tyr	Ser	Leu	Asn
1				5					10					15

<210> 1900
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 <212> PRT
 <213> Hepatitis B virus

<400> 1900

Asn Lys Thr Lys Arg Trp Gly Tyr Ser Leu Asn Phe Met Gly Tyr
 1 5 10 15

<210> 1901
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1901

Arg Trp Gly Tyr Ser Leu Asn Phe Met Gly Tyr Ile Ile Gly Ser
 1 5 10 15

<210> 1902
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1902

Ser Leu Asn Phe Met Gly Tyr Ile Ile Gly Ser Trp Gly Thr Leu
 1 5 10 15

<210> 1903
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1903

Met Gly Tyr Ile Ile Gly Ser Trp Gly Thr Leu Pro Gln Asp His
 1 5 10 15

<210> 1904
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1904

Ile Gly Ser Trp Gly Thr Leu Pro Gln Asp His Ile Val Gln Lys
 1 5 10 15

<210> 1905
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1905

Gly	Thr	Leu	Pro	Gln	Asp	His	Ile	Val	Gln	Lys	Ile	Lys	His	Cys
1				5					10					15

<210> 1906

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1906

Gln	Asp	His	Ile	Val	Gln	Lys	Ile	Lys	His	Cys	Phe	Arg	Lys	Leu
1				5					10					15

<210> 1907

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1907

Val	Gln	Lys	Ile	Lys	His	Cys	Phe	Arg	Lys	Leu	Pro	Val	Asn	Arg
1				5					10					15

<210> 1908

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1908

Lys	His	Cys	Phe	Arg	Lys	Leu	Pro	Val	Asn	Arg	Pro	Ile	Asp	Trp
1				5					10					15

<210> 1909

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1909

Arg	Lys	Leu	Pro	Val	Asn	Arg	Pro	Ile	Asp	Trp	Lys	Val	Cys	Gln
1				5					10					15

<210> 1910

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1910

Val	Asn	Arg	Pro	Ile	Asp	Trp	Lys	Val	Cys	Gln	Arg	Ile	Val	Gly
1				5					10					15

<210> 1911
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 <212> PRT
 <213> Hepatitis B virus

<400> 1911

Ile Asp Trp Lys Val Cys Gln Arg Ile Val Gly Leu Leu Gly Phe
 1 5 10 15

<210> 1912
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1912

Val Cys Gln Arg Ile Val Gly Leu Leu Gly Phe Ala Ala Pro Phe
 1 5 10 15

<210> 1913
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1913

Ile Val Gly Leu Leu Gly Phe Ala Ala Pro Phe Thr Gln Cys Gly
 1 5 10 15

<210> 1914
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1914

Leu Gly Phe Ala Ala Pro Phe Thr Gln Cys Gly Tyr Pro Ala Leu
 1 5 10 15

<210> 1915
 <211> 15
 <212> PRT
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<400> 1915

Ala Pro Phe Thr Gln Cys Gly Tyr Pro Ala Leu Met Pro Leu Tyr
 1 5 10 15

<210> 1916
 <211> 15
 <212> PRT
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<400> 1916

Gln Cys Gly Tyr Pro Ala Leu Met Pro Leu Tyr Ala Cys Ile Gln
 1 5 10 15

<210> 1917
 <211> 15
 <212> PRT
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<400> 1917

Pro Ala Leu Met Pro Leu Tyr Ala Cys Ile Gln Ala Lys Gln Ala
 1 5 10 15

<210> 1918
 <211> 15
 <212> PRT
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<400> 1918

Pro Leu Tyr Ala Cys Ile Gln Ala Lys Gln Ala Phe Thr Phe Ser
 1 5 10 15

<210> 1919
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1919

Cys Ile Gln Ala Lys Gln Ala Phe Thr Phe Ser Pro Thr Tyr Lys
 1 5 10 15

<210> 1920
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1920

Lys Gln Ala Phe Thr Phe Ser Pro Thr Tyr Lys Ala Phe Leu Ser
 1 5 10 15

<210> 1921
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1921

Thr Phe Ser Pro Thr Tyr Lys Ala Phe Leu Ser Lys Gln Tyr Met
 1 5 10 15

<210> 1922

<211> 15
 <212> PRT
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<400> 1922

Thr Tyr Lys Ala Phe Leu Ser Lys Gln Tyr Met Asn Leu Tyr Pro
 1 5 10 15

<210> 1923
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1923

Phe Leu Ser Lys Gln Tyr Met Asn Leu Tyr Pro Val Ala Arg Gln
 1 5 10 15

<210> 1924
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1924

Gln Tyr Met Asn Leu Tyr Pro Val Ala Arg Gln Arg Pro Gly Leu
 1 5 10 15

<210> 1925
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1925

Leu Tyr Pro Val Ala Arg Gln Arg Pro Gly Leu Cys Gln Val Phe
 1 5 10 15

<210> 1926
 <211> 15
 <212> PRT
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<400> 1926

Ala Arg Gln Arg Pro Gly Leu Cys Gln Val Phe Ala Asp Ala Thr
 1 5 10 15

<210> 1927
 <211> 15
 <212> PRT
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<400> 1927

Pro Gly Leu Cys Gln Val Phe Ala Asp Ala Thr Pro Thr Gly Trp
 1 5 10 15

<210> 1928
 <211> 15
 <212> PRT
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<400> 1928

Gln Val Phe Ala Asp Ala Thr Pro Thr Gly Trp Gly Leu Ala Ile
 1 5 10 15

<210> 1929
 <211> 15
 <212> PRT
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<400> 1929

Asp Ala Thr Pro Thr Gly Trp Gly Leu Ala Ile Gly His Gln Arg
 1 5 10 15

<210> 1930
 <211> 15
 <212> PRT
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<400> 1930

Thr Gly Trp Gly Leu Ala Ile Gly His Gln Arg Met Arg Gly Thr
 1 5 10 15

<210> 1931
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1931

Leu Ala Ile Gly His Gln Arg Met Arg Gly Thr Phe Val Ala Pro
 1 5 10 15

<210> 1932
 <211> 15
 <212> PRT
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<400> 1932

His Gln Arg Met Arg Gly Thr Phe Val Ala Pro Leu Pro Ile His
 1 5 10 15

<210> 1933
 <211> 15

<212> PRT
 <213> Hepatitis B virus
 <400> 1933

Arg Gly Thr Phe Val Ala Pro Leu Pro Ile His Thr Ala Glu Leu
 1 5 10 15

<210> 1934
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1934

Val Ala Pro Leu Pro Ile His Thr Ala Glu Leu Leu Ala Ala Cys
 1 5 10 15

<210> 1935
 <211> 15
 <212> PRT
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<400> 1935

Pro Ile His Thr Ala Glu Leu Leu Ala Ala Cys Phe Ala Arg Ser
 1 5 10 15

<210> 1936
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1936

Ala Glu Leu Leu Ala Ala Cys Phe Ala Arg Ser Arg Ser Gly Ala
 1 5 10 15

<210> 1937
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1937

Ala Ala Cys Phe Ala Arg Ser Arg Ser Gly Ala Lys Leu Ile Gly
 1 5 10 15

<210> 1938
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1938

Ala Arg Ser Arg Ser Gly Ala Lys Leu Ile Gly Thr Asp Asn Ser

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1          5          10          15
<210>  1939
<211>  15
<212>  PRT
<213>  Hepatitis B virus
<400>  1939
Ser Gly Ala Lys Leu Ile Gly Thr Asp Asn Ser Val Val Leu Ser
1          5          10          15

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<210> 1940
<211> 15
<212> PRT
<213> Hepatitis B virus
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<400> 1940

Leu Ile Gly Thr Asp Asn Ser Val Val Leu Ser Arg Lys Tyr Thr
1 5 10 15

<210>	1941
<211>	15
<212>	PRT
<213>	Hepatitis B virus

<400> 1941

Asp Asn Ser Val Val Leu Ser Arg Lys Tyr Thr Ser Phe Pro Trp
1 5 10 15

<210>	1942
<211>	15
<212>	PRT
<213>	Hepatitis B virus

<400> 1942

Val Leu Ser Arg Lys Tyr Thr Ser Phe Pro Trp Leu Leu Gly Cys
1 5 10 15

<210>	1943
<211>	15
<212>	PRT
<213>	Hepatitis B virus

<400> 1943

Lys Tyr Thr Ser Phe Pro Trp Leu Leu Gly Cys Thr Ala Asn Trp
1 5 10 15

<210>	1944
<211>	15
<212>	PRT

<213> Hepatitis B virus

<400> 1944

Phe Pro Trp Leu Leu Gly Cys Thr Ala Asn Trp Ile Leu Arg Gly
1 5 10 15

<210> 1945

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1945

Leu Gly Cys Thr Ala Asn Trp Ile Leu Arg Gly Thr Ser Phe Val
1 5 10 15

<210> 1946

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1946

Ala Asn Trp Ile Leu Arg Gly Thr Ser Phe Val Tyr Val Pro Ser
1 5 10 15

<210> 1947

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1947

Leu Arg Gly Thr Ser Phe Val Tyr Val Pro Ser Ala Leu Asn Pro
1 5 10 15

<210> 1948

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1948

Ser Phe Val Tyr Val Pro Ser Ala Leu Asn Pro Ala Asp Asp Pro
1 5 10 15

<210> 1949

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1949

Val Pro Ser Ala Leu Asn Pro Ala Asp Asp Pro Ser Arg Gly Arg
1 5 10 15

<210> 1950
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1950

Leu Asn Pro Ala Asp Asp Pro Ser Arg Gly Arg Leu Gly Leu Ser
 1 5 10 15

<210> 1951
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1951

Asp Asp Pro Ser Arg Gly Arg Leu Gly Leu Ser Arg Pro Leu Leu
 1 5 10 15

<210> 1952
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1952

Arg Gly Arg Leu Gly Leu Ser Arg Pro Leu Leu Arg Leu Pro Phe
 1 5 10 15

<210> 1953
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1953

Gly Leu Ser Arg Pro Leu Leu Arg Leu Pro Phe Gln Pro Thr Thr
 1 5 10 15

<210> 1954
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1954

Pro Leu Leu Arg Leu Pro Phe Gln Pro Thr Thr Gly Arg Thr Ser
 1 5 10 15

<210> 1955
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 1955

Leu Pro Phe Gln Pro Thr Thr Gly Arg Thr Ser Leu Tyr Ala Val
 1 5 10 15

<210> 1956

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1956

Pro Thr Thr Gly Arg Thr Ser Leu Tyr Ala Val Ser Pro Ser Val
 1 5 10 15

<210> 1957

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1957

Arg Thr Ser Leu Tyr Ala Val Ser Pro Ser Val Pro Ser His Leu
 1 5 10 15

<210> 1958

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1958

Tyr Ala Val Ser Pro Ser Val Pro Ser His Leu Pro Val Arg Val
 1 5 10 15

<210> 1959

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1959

Pro Ser Val Pro Ser His Leu Pro Val Arg Val His Phe Ala Ser
 1 5 10 15

<210> 1960

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1960

Ser His Leu Pro Val Arg Val His Phe Ala Ser Pro Leu His Val
 1 5 10 15

<210> 1961
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1961

Val Arg Val His Phe Ala Ser Pro Leu His Val Ala Trp Arg Pro
1 5 10 15

<210> 1962
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1962

Arg Val His Phe Ala Ser Pro Leu His Val Ala Trp Arg Pro Pro
1 5 10 15

<210> 1963
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1963

Met Gln Leu Phe His Leu Cys Leu Ile Ile Ser Cys Thr Cys Pro
1 5 10 15

<210> 1964
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1964

His Leu Cys Leu Ile Ile Ser Cys Thr Cys Pro Thr Val Gln Ala
1 5 10 15

<210> 1965
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1965

Ile Ile Ser Cys Thr Cys Pro Thr Val Gln Ala Ser Lys Leu Cys
1 5 10 15

<210> 1966
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 1966

Thr	Cys	Pro	Thr	Val	Gln	Ala	Ser	Lys	Leu	Cys	Leu	Gly	Trp	Leu
1				5					10					15

<210> 1967

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 1967

Val	Gln	Ala	Ser	Lys	Leu	Cys	Leu	Gly	Trp	Leu	Trp	Gly	Met	Asp
1				5					10					15

<210> 1968

<211> 15

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Lys	Leu	Cys	Leu	Gly	Trp	Leu	Trp	Gly	Met	Asp	Ile	Asp	Pro	Tyr
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Gly	Trp	Leu	Trp	Gly	Met	Asp	Ile	Asp	Pro	Tyr	Lys	Glu	Phe	Gly
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Gly	Met	Asp	Ile	Asp	Pro	Tyr	Lys	Glu	Phe	Gly	Ala	Thr	Val	Glu
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Asp	Pro	Tyr	Lys	Glu	Phe	Gly	Ala	Thr	Val	Glu	Leu	Leu	Ser	Phe
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Thr Val Glu Leu Leu Ser Phe Leu Pro Ser Asp Phe Phe Pro Ser
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Leu Ser Phe Leu Pro Ser Asp Phe Phe Pro Ser Val Arg Asp Leu
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<400> 1975

Pro Ser Asp Phe Phe Pro Ser Val Arg Asp Leu Leu Asp Thr Ala
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Phe Pro Ser Val Arg Asp Leu Leu Asp Thr Ala Ser Ala Leu Tyr
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Arg Asp Leu Leu Asp Thr Ala Ser Ala Leu Tyr Arg Glu Ala Leu
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Asp Thr Ala Ser Ala Leu Tyr Arg Glu Ala Leu Glu Ser Pro Glu
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Ala Leu Tyr Arg Glu Ala Leu Glu Ser Pro Glu His Cys Ser Pro
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Glu Ala Leu Glu Ser Pro Glu His Cys Ser Pro His His Thr Ala
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Ser Pro Glu His Cys Ser Pro His His Thr Ala Leu Arg Gln Ala
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Cys Ser Pro His His Thr Ala Leu Arg Gln Ala Ile Leu Cys Trp
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<400> 1983

His Thr Ala Leu Arg Gln Ala Ile Leu Cys Trp Gly Glu Leu Met
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<210> 1984
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<400> 1984

Arg Gln Ala Ile Leu Cys Trp Gly Glu Leu Met Thr Leu Ala Thr
1 5 10 15

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<400> 1985

Leu Cys Trp Gly Glu Leu Met Thr Leu Ala Thr Trp Val Gly Asn
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<400> 1986

Glu Leu Met Thr Leu Ala Thr Trp Val Gly Asn Asn Leu Glu Asp
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Leu Ala Thr Trp Val Gly Asn Asn Leu Glu Asp Pro Ala Ser Arg
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Val Gly Asn Asn Leu Glu Asp Pro Ala Ser Arg Asp Leu Val Val
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Leu Glu Asp Pro Ala Ser Arg Asp Leu Val Val Asn Tyr Val Asn
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<400> 1990

Ala Ser Arg Asp Leu Val Val Asn Tyr Val Asn Thr Asn Met Gly
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<400> 1991

Leu Val Val Asn Tyr Val Asn Thr Asn Met Gly Leu Lys Ile Arg
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<210> 1992
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<400> 1992

Tyr Val Asn Thr Asn Met Gly Leu Lys Ile Arg Gln Leu Leu Trp
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<400> 1993

Asn Met Gly Leu Lys Ile Arg Gln Leu Leu Trp Phe His Ile Ser
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Lys Ile Arg Gln Leu Leu Trp Phe His Ile Ser Cys Leu Thr Phe
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<400> 1995

Leu Leu Trp Phe His Ile Ser Cys Leu Thr Phe Gly Arg Glu Thr
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His Ile Ser Cys Leu Thr Phe Gly Arg Glu Thr Val Leu Glu Tyr
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Leu Thr Phe Gly Arg Glu Thr Val Leu Glu Tyr Leu Val Ser Phe
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<400> 1998

Arg Glu Thr Val Leu Glu Tyr Leu Val Ser Phe Gly Val Trp Ile
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Leu Glu Tyr Leu Val Ser Phe Gly Val Trp Ile Arg Thr Pro Pro

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<213> Hepatitis B virus

<400> 2005

Leu Ser Thr Leu Pro Glu Thr Thr Val Val Arg Arg Arg Asp Arg
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<210> 2006

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<400> 2006

Pro Glu Thr Thr Val Val Arg Arg Arg Asp Arg Gly Arg Ser Pro
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<400> 2007

Val Val Arg Arg Arg Asp Arg Gly Arg Ser Pro Arg Arg Arg Thr
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<400> 2008

Arg Asp Arg Gly Arg Ser Pro Arg Arg Arg Thr Pro Ser Pro Arg
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<400> 2009

Arg Ser Pro Arg Arg Arg Thr Pro Ser Pro Arg Arg Arg Arg Ser
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<400> 2010

Arg Arg Thr Pro Ser Pro Arg Arg Arg Arg Ser Gln Ser Pro Arg
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<210> 2011
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<400> 2011

Ser Pro Arg Arg Arg Arg Ser Gln Ser Pro Arg Arg Arg Arg Ser
1 5 10 15

<210> 2012
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<400> 2012

Arg Arg Ser Gln Ser Pro Arg Arg Arg Arg Ser Gln Ser Arg Glu
1 5 10 15

<210> 2013
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<400> 2013

Gln Ser Pro Arg Arg Arg Arg Ser Gln Ser Arg Glu Ser Gln Cys
1 5 10 15

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<400> 2014

Met Gly Gln Asn Leu Ser Thr Ser Asn Pro Leu Gly Phe Phe Pro
1 5 10 15

<210> 2015
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<400> 2015

Leu Asp Pro Ala Phe Arg Ala Asn Thr Ala Asn Pro Asp Trp Asp
1 5 10 15

<210> 2016
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<400> 2016

Asn	Pro	Asn	Lys	Asp	Thr	Trp	Pro	Asp	Ala	Asn	Lys	Val	Gly	Ala
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<210> 2017

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<212> PRT

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<400> 2017

Asp	Thr	Trp	Pro	Asp	Ala	Asn	Lys	Val	Gly	Ala	Gly	Ala	Phe	Gly
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<210> 2018

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<212> PRT

<213> Hepatitis B virus

<400> 2018

Asp	Trp	Asp	Phe	Asn	Pro	Asn	Lys	Asp	Thr	Trp	Pro	Asp	Ala	Asn
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<210> 2019

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2019

Asn	Pro	Asn	Lys	Asp	His	Trp	Pro	Glu	Ala	Asn	Gln	Val	Gly	Ala
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<210> 2020

<211> 15

<212> PRT

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<400> 2020

Asp	His	Trp	Pro	Glu	Ala	Asn	Gln	Val	Gly	Ala	Gly	Ala	Phe	Gly
1				5					10					15

<210> 2021

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2021

Asp	Trp	Asp	Phe	Asn	Pro	Asn	Lys	Asp	His	Trp	Pro	Glu	Ala	Asn
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<400> 2022

Asn Pro His Lys Asp Asn Trp Pro Asp Ala Asn Lys Val Gly Val
1 5 10 15

<210> 2023
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<212> PRT
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<400> 2023

Asp Asn Trp Pro Asp Ala Asn Lys Val Gly Val Gly Ala Phe Gly
1 5 10 15

<210> 2024
<211> 15
<212> PRT
<213> Hepatitis B virus

<400> 2024

Asp Trp Asp Leu Asn Pro His Lys Asp Asn Trp Pro Asp Ala Asn
1 5 10 15

<210> 2025
<211> 15
<212> PRT
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<400> 2025

Gln Gly Ile Leu Gln Thr Leu Pro Ala Asn Pro Pro Pro Ala Ser
1 5 10 15

<210> 2026
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<400> 2026

Gln Thr Leu Pro Ala Asn Pro Pro Pro Ala Ser Thr Asn Arg Gln
1 5 10 15

<210> 2027
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<400> 2027

Ser	Pro	Gln	Ala	Gln	Gly	Ile	Leu	Gln	Thr	Leu	Pro	Ala	Asn	Pro
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<210> 2028

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2028

Gln	Gly	Ile	Leu	Thr	Thr	Val	Pro	Ala	Ala	Pro	Pro	Pro	Ala	Ser
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<210> 2029

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2029

Gln	Pro	Thr	Pro	Leu	Ser	Pro	Pro	Leu	Arg	Asp	Thr	His	Pro	Gln
1				5					10					15

<210> 2030

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<212> PRT

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<400> 2030

Leu	Ser	Pro	Pro	Leu	Arg	Asn	Thr	His	Pro	Gln	Ala	Met	Gln	Trp
1				5					10					15

<210> 2031

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2031

Asn	Ser	Thr	Thr	Phe	His	Gln	Thr	Leu	Gln	Asp	Pro	Arg	Val	Arg
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<210> 2032

<211> 15

<212> PRT

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<400> 2032

Gly	Thr	Val	Asn	Pro	Val	Pro	Thr	Thr	Ala	Ser	Pro	Ile	Ser	Ser
1				5					10					15

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<400> 2033

Pro Val Pro Thr Thr Ala Ser Pro Ile Ser Ser Ile Phe Ser Arg
 1 5 10 15

<210> 2034
 <211> 15
 <212> PRT
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<400> 2034

Thr Ala Ser Pro Ile Ser Ser Ile Phe Ser Arg Ile Gly Asp Pro
 1 5 10 15

<210> 2035
 <211> 15
 <212> PRT
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<400> 2035

Ile Ser Ser Ile Phe Ser Arg Ile Gly Asp Pro Ala Leu Asn Met
 1 5 10 15

<210> 2036
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2036

Phe Ser Arg Ile Gly Asp Pro Ala Leu Asn Met Glu Asn Ile Thr
 1 5 10 15

<210> 2037
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 <212> PRT
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<400> 2037

Gly Asp Pro Ala Leu Asn Met Glu Asn Ile Thr Ser Gly Phe Leu
 1 5 10 15

<210> 2038
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2038

Gly Thr Val Ser Pro Ala Gln Asn Thr Val Ser Ala Ile Ser Ser
 1 5 10 15

<210> 2039
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2039

Pro Ala Gln Asn Thr Val Ser Ala Ile Ser Ser Ile Leu Ser Lys
 1 5 10 15

<210> 2040
 <211> 15
 <212> PRT
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<400> 2040

Thr Val Ser Ala Ile Ser Ser Ile Leu Ser Lys Thr Gly Asp Pro
 1 5 10 15

<210> 2041
 <211> 15
 <212> PRT
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<400> 2041

Ile Ser Ser Ile Leu Ser Lys Thr Gly Asp Pro Val Pro Asn Met
 1 5 10 15

<210> 2042
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2042

Leu Ser Lys Thr Gly Asp Pro Val Pro Asn Met Glu Asn Ile Ala
 1 5 10 15

<210> 2043
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2043

Gly Asp Pro Val Pro Asn Met Glu Asn Ile Ala Ser Gly Leu Leu
 1 5 10 15

<210> 2044

<211> 15
 <212> PRT
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<400> 2044

Asn Phe Leu Gly Gly Thr Thr Val Cys Leu Gly Gln Asn Ser Gln
 1 5 10 15

<210> 2045
 <211> 15
 <212> PRT
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<400> 2045

Leu Asn Phe Leu Gly Gly Ala Pro Thr Cys Pro Gly Gln Asn Ser
 1 5 10 15

<210> 2046
 <211> 15
 <212> PRT
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<400> 2046

Asn Ser Gln Ser Gln Ile Ser Ser His Ser Pro Thr Cys Cys Pro
 1 5 10 15

<210> 2047
 <211> 15
 <212> PRT
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<400> 2047

Gln Ile Ser Ser His Ser Pro Thr Cys Cys Pro Pro Ile Cys Pro
 1 5 10 15

<210> 2048
 <211> 15
 <212> PRT
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<400> 2048

Pro Val Cys Pro Leu Leu Pro Gly Thr Ser Thr Thr Ser Thr Gly
 1 5 10 15

<210> 2049
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 <212> PRT
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<400> 2049

Pro Ser Ser Trp Ala Phe Gly Lys Phe Leu Trp Glu Trp Ala Ser
 1 5 10 15

<210> 2050
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 <212> PRT
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<400> 2050

Pro Ser Ser Trp Ala Phe Ala Arg Phe Leu Trp Glu Trp Ala Ser
 1 5 10 15

<210> 2051
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<400> 2051

Trp Gly Pro Ser Leu Tyr Ser Ile Leu Ser Pro Phe Leu Pro Leu
 1 5 10 15

<210> 2052
 <211> 15
 <212> PRT
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<400> 2052

Trp Gly Pro Ser Leu Tyr Asn Ile Leu Ser Pro Phe Met Pro Leu
 1 5 10 15

<210> 2053
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<400> 2053

Ala Ala Arg Val Cys Cys Gln Leu Asp Pro Ala Arg Asp Val Leu
 1 5 10 15

<210> 2054
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 <212> PRT
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<400> 2054

Ala Ala Arg Leu Cys Cys Gln Leu Asp Pro Ala Arg Asp Val Leu
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<210> 2055
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<212> PRT
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<400> 2055

Arg Gly Arg Pro Leu Pro Gly Pro Leu Gly Ala Leu Pro Pro Ala
1 5 10 15

<210> 2056
<211> 15
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<400> 2056

Leu Pro Gly Pro Leu Gly Ala Leu Pro Pro Ala Ser Pro Ser Ala
1 5 10 15

<210> 2057
<211> 15
<212> PRT
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<400> 2057

Leu Gly Ala Leu Pro Pro Ala Ser Pro Ser Ala Val Pro Ser Asp
1 5 10 15

<210> 2058
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<400> 2058

Arg Gly Arg Pro Val Ser Gly Pro Phe Gly Pro Leu Pro Ser Pro
1 5 10 15

<210> 2059
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<400> 2059

Val Ser Gly Pro Phe Gly Pro Leu Pro Ser Pro Ser Ser Ser Ala
1 5 10 15

<210> 2060
<211> 15
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<400> 2060

Phe Gly Pro Leu Pro Ser Pro Ser Ser Ser Ala Val Pro Ala Asp

<213> Hepatitis B virus

<400> 2066

Leu Leu Leu Leu Asp Asp Glu Ala Gly Pro Leu Glu Glu Glu Leu
1 5 10 15

<210> 2067

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2067

Glu Leu Pro Arg Leu Ala Asp Glu Gly Leu Asn Arg Arg Val Ala
1 5 10 15

<210> 2068

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2068

Val Pro Val Phe Asn Pro His Trp Lys Thr Pro Ser Phe Pro Asn
1 5 10 15

<210> 2069

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2069

Asn Ile His Leu His Gln Asp Ile Ile Lys Lys Cys Glu Gln Phe
1 5 10 15

<210> 2070

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2070

His Gln Asp Ile Ile Lys Lys Cys Glu Gln Phe Val Gly Pro Leu
1 5 10 15

<210> 2071

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2071

Ile Lys Lys Cys Glu Gln Phe Val Gly Pro Leu Thr Val Asn Glu
1 5 10 15

<210> 2072
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 <212> PRT
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<400> 2072

Asn	Ile	His	Leu	Gln	Glu	Asp	Ile	Ile	Asn	Arg	Cys	Gln	Gln	Tyr
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<400> 2073

Gln	Glu	Asp	Ile	Ile	Asn	Arg	Cys	Gln	Gln	Tyr	Val	Gly	Pro	Leu
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<210> 2074
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<400> 2074

Ile	Asn	Arg	Cys	Gln	Gln	Tyr	Val	Gly	Pro	Leu	Thr	Val	Asn	Glu
1				5					10					15

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<400> 2075

Gln	Gln	Tyr	Val	Gly	Pro	Leu	Thr	Val	Asn	Glu	Lys	Arg	Arg	Leu
1				5					10					15

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<400> 2076

Asp	Ile	His	Leu	Gln	Glu	Asp	Ile	Val	Asp	Arg	Cys	Lys	Gln	Phe
1				5					10					15

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<400> 2077

Gln Glu Asp Ile Val Asp Arg Cys Lys Gln Phe Val Gly Pro Leu
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<210> 2078

<211> 15

<212> PRT

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<400> 2078

Val Asp Arg Cys Lys Gln Phe Val Gly Pro Leu Thr Val Asn Glu
 1 5 10 15

<210> 2079

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2079

Ile Lys Pro Tyr Tyr Pro Glu His Leu Val Asn His Tyr Phe Gln
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<210> 2080

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2080

Trp Glu Gln Glu Leu Gln His Gly Ala Glu Ser Phe His Gln Gln
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<210> 2081

<211> 15

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<400> 2081

Leu Gln His Gly Ala Glu Ser Phe His Gln Gln Ser Ser Gly Ile
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<210> 2082

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2082

Leu Gln His Gly Arg Leu Val Phe Gln Thr Ser Thr Arg His Gly
 1 5 10 15

<210> 2083
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 <212> PRT
 <213> Hepatitis B virus

<400> 2083

Arg Leu Val Phe Gln Thr Ser Thr Arg His Gly Asp Glu Ser Phe
 1 5 10 15

<210> 2084
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 <212> PRT
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<400> 2084

Gln Thr Ser Thr Arg His Gly Asp Glu Ser Phe Cys Ser Gln Ser
 1 5 10 15

<210> 2085
 <211> 15
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 <213> Hepatitis B virus

<400> 2085

Arg His Gly Asp Glu Ser Phe Cys Ser Gln Ser Ser Gly Ile Leu
 1 5 10 15

<210> 2086
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 <212> PRT
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<400> 2086

Ser Ser Gly Ile Leu Ser Arg Pro Pro Val Gly Ser Ser Leu Gln
 1 5 10 15

<210> 2087
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<400> 2087

Leu Ser Arg Pro Pro Val Gly Ser Ser Leu Gln Ser Lys His Arg
 1 5 10 15

<210> 2088
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<400> 2088

Pro Val Gly Ser Ser Leu Gln Ser Lys His Arg Lys Ser Arg Leu
 1 5 10 15

<210> 2089

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<212> PRT

<213> Hepatitis B virus

<400> 2089

Ser Leu Gln Ser Lys His Arg Lys Ser Arg Leu Gly Leu Gln Ser
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<210> 2090

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2090

Lys His Arg Lys Ser Arg Leu Gly Leu Gln Ser Gln Gln Gly His
 1 5 10 15

<210> 2091

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2091

Ser Arg Leu Gly Leu Gln Ser Gln Gln Gly His Leu Ala Arg Arg
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<210> 2092

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2092

Leu Gln Ser Gln Gln Gly His Leu Ala Arg Arg Gln Gln Gly Arg
 1 5 10 15

<210> 2093

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<212> PRT

<213> Hepatitis B virus

<400> 2093

Gln Gly His Leu Ala Arg Arg Gln Gln Gly Arg Ser Trp Ser Ile
 1 5 10 15

<210> 2094
<211> 15
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<400> 2094

Ala Arg Arg Gln Gln Gly Arg Ser Trp Ser Ile Arg Ala Gly Phe
1 5 10 15

<210> 2095
<211> 15
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<400> 2095

Gln Gly Arg Ser Trp Ser Ile Arg Ala Gly Phe His Pro Thr Ala
1 5 10 15

<210> 2096
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<400> 2096

Trp Ser Ile Arg Ala Gly Phe His Pro Thr Ala Arg Arg Pro Phe
1 5 10 15

<210> 2097
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<212> PRT
<213> Hepatitis B virus

<400> 2097

Ala Gly Phe His Pro Thr Ala Arg Arg Pro Phe Gly Val Glu Pro
1 5 10 15

<210> 2098
<211> 15
<212> PRT
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<400> 2098

Pro Thr Ala Arg Arg Pro Phe Gly Val Glu Pro Ser Gly Ser Gly
1 5 10 15

<210> 2099
<211> 15
<212> PRT
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<400> 2099

Arg Pro Phe Gly Val Glu Pro Ser Gly Ser Gly His Thr Thr Asn
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<210> 2100
 <211> 15
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<400> 2100

Val Glu Pro Ser Gly Ser Gly His Thr Thr Asn Phe Ala Ser Lys
 1 5 10 15

<210> 2101
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 <213> Hepatitis B virus

<400> 2101

Gly Ser Gly His Thr Thr Asn Phe Ala Ser Lys Ser Ala Ser Cys
 1 5 10 15

<210> 2102
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2102

Thr Thr Asn Phe Ala Ser Lys Ser Ala Ser Cys Leu Tyr Gln Ser
 1 5 10 15

<210> 2103
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2103

Ala Ser Lys Ser Ala Ser Cys Leu Tyr Gln Ser Pro Val Arg Lys
 1 5 10 15

<210> 2104
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2104

Cys Ile Gln Ser Gln Leu Arg Lys Ser Arg Leu Gly Pro Gln Pro
 1 5 10 15

<210> 2105

<211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2105

Thr Gln Gly Gln Leu Ala Gly Arg Pro Gln Gly Gly Ser Gly Ser
 1 5 10 15

<210> 2106
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2106

Val Glu Pro Ser Gly Ser Gly His Thr His Asn Cys Ala Ser Ser
 1 5 10 15

<210> 2107
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 <212> PRT
 <213> Hepatitis B virus

<400> 2107

Gly Ser Gly His Thr His Asn Cys Ala Ser Ser Ser Ser Ser Cys
 1 5 10 15

<210> 2108
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2108

Thr His Asn Cys Ala Ser Ser Ser Ser Ser Cys Leu His Gln Ser
 1 5 10 15

<210> 2109
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2109

Leu Gln Pro Gln Gln Gly Ser Leu Ala Arg Gly Lys Ser Gly Arg
 1 5 10 15

<210> 2110
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 <212> PRT
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<400> 2110

Gln Gly Ser Leu Ala Arg Gly Lys Ser Gly Arg Ser Gly Ser Ile
 1 5 10 15

<210> 2111
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 <212> PRT
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<400> 2111

Ala Arg Gly Lys Ser Gly Arg Ser Gly Ser Ile Arg Ala Arg Val
 1 5 10 15

<210> 2112
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<400> 2112

Ser Gly Arg Ser Gly Ser Ile Arg Ala Arg Val His Pro Thr Thr
 1 5 10 15

<210> 2113
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 <212> PRT
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<400> 2113

Gly Ser Ile Arg Ala Arg Val His Pro Thr Thr Arg Arg Ser Phe
 1 5 10 15

<210> 2114
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 <212> PRT
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<400> 2114

Val Glu Pro Ser Gly Ser Gly His Ile Asp Asn Ser Ala Ser Ser
 1 5 10 15

<210> 2115
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<400> 2115

Gly Ser Gly His Ile Asp Asn Ser Ala Ser Ser Ala Ser Ser Cys
 1 5 10 15

<210> 2116
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<212> PRT
 <213> Hepatitis B virus
 <400> 2116

Ile Asp Asn Ser Ala Ser Ser Ala Ser Ser Cys Leu His Gln Ser
 1 5 10 15

<210> 2117
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 <212> PRT
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<400> 2117

Lys Ala Ala Tyr Pro Ser Val Ser Thr Phe Glu Lys His Ser Ser
 1 5 10 15

<210> 2118
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<400> 2118

Pro Ser Val Ser Thr Phe Glu Lys His Ser Ser Ser Gly His Ala
 1 5 10 15

<210> 2119
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 <212> PRT
 <213> Hepatitis B virus

<400> 2119

Thr Phe Glu Lys His Ser Ser Ser Gly His Ala Val Glu Leu His
 1 5 10 15

<210> 2120
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2120

Lys Ala Ala Tyr Ser Pro Ile Ser Thr Ser Lys Gly His Ser Ser
 1 5 10 15

<210> 2121
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 <212> PRT
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<400> 2121

Ser Pro Ile Ser Thr Ser Lys Gly His Ser Ser Ser Gly His Ala


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<210> 2127
<211> 15
<212> PRT
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<213> Hepatitis B virus

<400> 2127

Ser Glu Arg Pro Val Phe Pro Cys Trp Trp Leu Gln Phe Arg Asn
1 5 10 15

<210> 2128

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2128

Val Phe Pro Cys Trp Trp Leu Gln Phe Arg Asn Ser Lys Pro Cys
1 5 10 15

<210> 2129

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2129

His Ala Val Glu Leu His His Phe Pro Pro Asn Ser Ser Arg Ser
1 5 10 15

<210> 2130

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2130

Leu His His Phe Pro Pro Asn Ser Ser Arg Ser Gln Ser Gln Gly
1 5 10 15

<210> 2131

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2131

Pro Pro Asn Ser Ser Arg Ser Gln Ser Gln Gly Ser Val Leu Ser
1 5 10 15

<210> 2132

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2132

Ser Arg Ser Gln Ser Gln Gly Ser Val Leu Ser Cys Trp Trp Leu
1 5 10 15

<210> 2133
 <211> 15
 <212> PRT
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<400> 2133

Ser Gln Gly Ser Val Leu Ser Cys Trp Trp Leu Gln Phe Arg Asn
 1 5 10 15

<210> 2134
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2134

His Ala Val Glu Leu His Asn Ile Pro Pro Ser Ser Ala Arg Ser
 1 5 10 15

<210> 2135
 <211> 15
 <212> PRT
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<400> 2135

Leu His Asn Ile Pro Pro Ser Ser Ala Arg Ser Gln Ser Glu Gly
 1 5 10 15

<210> 2136
 <211> 15
 <212> PRT
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<400> 2136

Pro Pro Ser Ser Ala Arg Ser Gln Ser Glu Gly Pro Ile Phe Ser
 1 5 10 15

<210> 2137
 <211> 15
 <212> PRT
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<400> 2137

Ala Arg Ser Gln Ser Glu Gly Pro Ile Phe Ser Cys Trp Trp Leu
 1 5 10 15

<210> 2138
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2138

Lys Pro Cys Ser Asp Tyr Cys Leu Ser His Ile Val Asn Leu Leu
 1 5 10 15

<210> 2139

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2139

Asp Tyr Cys Leu Ser His Ile Val Asn Leu Leu Glu Asp Trp Gly
 1 5 10 15

<210> 2140

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2140

Ser His Ile Val Asn Leu Leu Glu Asp Trp Gly Pro Cys Ala Glu
 1 5 10 15

<210> 2141

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2141

Ser Gln Phe Ser Arg Gly Asn Tyr Arg Val Ser Trp Pro Lys Phe
 1 5 10 15

<210> 2142

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2142

Ser Gln Phe Ser Arg Gly Ser Thr His Val Ser Trp Pro Lys Phe
 1 5 10 15

<210> 2143

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2143

Ser Thr Ser Arg Asn Ile Asn Tyr Gln His Gly Thr Met Gln Asp
 1 5 10 15

<210> 2144
 <211> 15
 <212> PRT
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<400> 2144

Asn Ile Asn Tyr Gln His Gly Thr Met Gln Asp Leu His Asp Ser
 1 5 10 15

<210> 2145
 <211> 15
 <212> PRT
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<400> 2145

Ser Asn Ser Arg Ile Ile Asn His Gln His Gly Thr Met Gln Asn
 1 5 10 15

<210> 2146
 <211> 15
 <212> PRT
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<400> 2146

Asn Leu Tyr Val Ser Leu Leu Leu Leu Tyr Gln Thr Phe Gly Arg
 1 5 10 15

<210> 2147
 <211> 15
 <212> PRT
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<400> 2147

Ser Leu Leu Leu Leu Tyr Gln Thr Phe Gly Arg Lys Leu His Leu
 1 5 10 15

<210> 2148
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2148

Leu Tyr Gln Thr Phe Gly Arg Lys Leu His Leu Tyr Ser His Pro
 1 5 10 15

<210> 2149
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2149

Phe	Gly	Arg	Lys	Leu	His	Leu	Tyr	Ser	His	Pro	Ile	Ile	Leu	Gly
1				5					10					15

<210> 2150

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2150

Ser	Val	Gln	His	Leu	Glu	Ser	Leu	Phe	Thr	Ser	Ile	Thr	Asn	Phe
1				5					10					15

<210> 2151

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2151

Leu	Glu	Ser	Leu	Phe	Thr	Ser	Ile	Thr	Asn	Phe	Leu	Leu	Ser	Leu
1				5					10					15

<210> 2152

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2152

Phe	Thr	Ser	Ile	Thr	Asn	Phe	Leu	Leu	Ser	Leu	Gly	Ile	His	Leu
1				5					10					15

<210> 2153

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2153

Tyr	Val	Ile	Gly	Cys	Tyr	Gly	Ser	Leu	Pro	Gln	Asp	His	Ile	Ile
1				5					10					15

<210> 2154

<211> 15

<212> PRT

<213> Hepatitis B virus

<400> 2154

Cys	Tyr	Gly	Ser	Leu	Pro	Gln	Asp	His	Ile	Ile	Gln	Lys	Ile	Lys
1				5					10					15

<210> 2155
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2155

Leu Pro Gln Asp His Ile Ile Gln Lys Ile Lys Glu Cys Phe Arg
 1 5 10 15

<210> 2156
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2156

Gln Glu His Ile Val Leu Lys Ile Lys Gln Cys Phe Arg Lys Leu
 1 5 10 15

<210> 2157
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2157

Tyr Lys Ala Phe Leu Cys Lys Gln Tyr Leu Asn Leu Tyr Pro Val
 1 5 10 15

<210> 2158
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2158

Thr Pro Thr Gly Trp Gly Leu Val Met Gly His Gln Arg Met Arg
 1 5 10 15

<210> 2159
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2159

Arg Ser Arg Ser Gly Ala Asn Ile Leu Gly Thr Asp Asn Ser Val
 1 5 10 15

<210> 2160
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2160

Gly Arg Leu Gly Leu Ser Arg Pro Leu Leu Arg Leu Pro Phe Arg
 1 5 10 15

<210> 2161
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2161

Gly Arg Leu Gly Leu Tyr Arg Pro Leu Leu His Leu Pro Phe Arg
 1 5 10 15

<210> 2162
 <211> 15
 <212> PRT
 <213> Hepatitis B virus

<400> 2162

Gly Arg Leu Gly Leu Tyr Arg Pro Leu Leu Arg Leu Pro Tyr Arg
 1 5 10 15

<210> 2163
 <211> 10
 <212> PRT
 <213> Hepatitis B virus

<400> 2163

Phe Leu Pro Ser Asp Phe Phe Pro Ser Val
 1 5 10

<210> 2164
 <211> 9
 <212> PRT
 <213> Hepatitis B virus

<400> 2164

Val Leu Gln Ala Gly Phe Phe Leu Leu
 1 5

<210> 2165
 <211> 9
 <212> PRT
 <213> Hepatitis B virus

<400> 2165

Phe Leu Leu Thr Arg Ile Leu Thr Ile
 1 5

<210> 2166

<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2166

Leu Leu Cys Leu Ile Phe Leu Leu Val
1 5

<210> 2167
<211> 10
<212> PRT
<213> Hepatitis B virus

<400> 2167

Leu Leu Asp Tyr Gln Gly Met Leu Pro Val
1 5 10

<210> 2168
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2168

Trp Leu Ser Leu Leu Val Pro Phe Val
1 5

<210> 2169
<211> 10
<212> PRT
<213> Hepatitis B virus

<400> 2169

Leu Leu Val Pro Phe Val Gln Trp Phe Val
1 5 10

<210> 2170
<211> 10
<212> PRT
<213> Hepatitis B virus

<400> 2170

Gly Leu Ser Pro Thr Val Trp Leu Ser Val
1 5 10

<210> 2171
<211> 10
<212> PRT
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<400> 2171

Leu Leu Pro Ile Phe Phe Cys Leu Trp Val
1 5 10

<210> 2172
<211> 10
<212> PRT
<213> Hepatitis B virus

<400> 2172

Tyr Leu His Thr Leu Trp Lys Ala Gly Ile
1 5 10

<210> 2173
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2173

Asn Leu Ser Trp Leu Ser Leu Asp Val
1 5

<210> 2174
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2174

Gly Leu Ser Arg Tyr Val Ala Arg Leu
1 5

<210> 2175
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2175

Lys Leu His Leu Tyr Ser His Pro Ile
1 5

<210> 2176
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2176

Leu Leu Ala Gln Phe Thr Ser Ala Ile
1 5

<210> 2177
<211> 9

<212> PRT
<213> Hepatitis B virus

<400> 2177

Tyr Met Asp Asp Val Val Leu Gly Ala
1 5

<210> 2178
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2178

Tyr Val Asp Asp Val Val Leu Gly Ala
1 5

<210> 2179
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2179

Tyr Ile Asp Asp Val Val Leu Gly Ala
1 5

<210> 2180
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2180

Phe Leu Leu Ser Leu Gly Ile His Leu
1 5

<210> 2181
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2181

Ala Leu Met Pro Leu Tyr Ala Cys Ile
1 5

<210> 2182
<211> 9
<212> PRT
<213> Hepatitis B virus

<400> 2182

Trp Ile Leu Arg Gly Thr Ser Phe Val

1

5

<210> 2183
 <211> 10
 <212> PRT
 <213> Hepatitis B virus

<400> 2183

Ile Leu Arg Gly Thr Ser Phe Val Tyr Val
 1 5 10

<210> 2184
 <211> 543
 <212> PRT
 <213> Simian immunodeficiency virus

<400> 2184

Met Gly Val Arg Asn Ser Val Leu Ser Gly Lys Lys Ala Asp Glu Leu
 1 5 10 15

Glu Lys Ile Arg Leu Arg Pro Asn Gly Lys Lys Lys Tyr Met Leu Lys
 20 25 30

His Val Val Trp Ala Ala Asn Glu Leu Asp Arg Phe Gly Leu Ala Glu
 35 40 45

Ser Leu Leu Glu Asn Lys Glu Gly Cys Gln Lys Ile Leu Ser Val Leu
 50 55 60

Ala Pro Leu Val Pro Thr Gly Ser Glu Asn Leu Lys Ser Leu Tyr Asn
 65 70 75 80

Thr Val Cys Val Ile Trp Cys Ile His Ala Glu Glu Lys Val Lys His
 85 90 95

Thr Glu Glu Ala Lys Gln Ile Val Gln Arg His Leu Val Val Glu Thr
 100 105 110

Gly Thr Thr Glu Thr Met Pro Lys Thr Ser Arg Pro Thr Ala Pro Ser
 115 120 125

Ser Gly Arg Gly Gly Asn Tyr Pro Val Gln Gln Ile Gly Gly Asn Tyr
 130 135 140

Val His Leu Pro Leu Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Leu
 145 150 155 160

Ile Glu Glu Lys Lys Phe Gly Ala Glu Val Val Ile Glu Glu Lys Lys
 165 170 175
 Phe Gly Ala Glu Val Val Pro Gly Phe Gln Ala Leu Ser Glu Gly Cys
 180 185 190
 Thr Pro Tyr Asp Ile Asn Gln Met Leu Asn Cys Val Gly Asp His Gln
 195 200 205
 Ala Ala Met Gln Ile Ile Arg Asp Ile Ile Asn Glu Glu Ala Ala Asp
 210 215 220
 Trp Asp Leu Gln His Pro Gln Pro Ala Pro Gln Gln Gly Gln Leu Arg
 225 230 235 240
 Glu Pro Ser Gly Ser Asp Ile Ala Gly Thr Thr Ser Ser Val Asp Glu
 245 250 255
 Gln Ile Gln Trp Met Tyr Arg Gln Gln Asn Pro Ile Pro Val Gly Asn
 260 265 270
 Ile Tyr Arg Arg Trp Ile Gln Leu Gly Leu Gln Lys Cys Val Arg Met
 275 280 285
 Tyr Asn Pro Thr Asn Ile Leu Asp Val Lys Gln Gly Pro Lys Glu Pro
 290 295 300
 Phe Gln Ser Tyr Val Asp Arg Phe Tyr Lys Ser Leu Arg Ala Glu Gln
 305 310 315 320
 Thr Asp Ala Ala Val Lys Asn Trp Met Thr Gln Thr Leu Leu Ile Gln
 325 330 335
 Asn Ala Asn Pro Asp Cys Thr Leu Leu Ile Gln Asn Ala Asn Pro Asp
 340 345 350
 Cys Lys Leu Val Leu Lys Gly Leu Gly Val Asn Pro Thr Leu Glu Glu
 355 360 365
 Met Leu Thr Ala Cys Gln Gly Val Gly Gly Pro Gly Gln Lys Ala Arg
 370 375 380
 Leu Met Ala Glu Ala Leu Lys Glu Ala Leu Ala Pro Val Pro Ile Pro
 385 390 395 400
 Phe Ala Ala Ala Gln Gln Arg Gly Pro Arg Lys Pro Ile Lys Cys Trp

482

483

Ile Thr Val Leu Asp Ile Gly Asp Ala Tyr Phe Ser Ile Pro Leu Asp
 325 330 335
 Glu Glu Asp Ala Tyr Phe Ser Ile Pro Leu Asp Glu Glu Phe Arg Gln
 340 345 350
 Tyr Thr Ala Phe Thr Leu Pro Ser Val Asn Asn Ala Glu Pro Gly Lys
 355 360 365
 Arg Tyr Ile Tyr Lys Val Leu Pro Gln Gly Trp Lys Gly Ser Pro Ala
 370 375 380
 Ile Phe Gln Tyr Thr Met Arg His Val Leu Glu Pro Phe Arg Lys Ala
 385 390 395 400
 Asn Pro Asp Val Thr Leu Val Gln Tyr Met Asp Asp Ile Leu Ile Ala
 405 410 415
 Ser Asp Arg Thr Asp Leu Glu His Asp Arg Val Val Leu Gln Ser Lys
 420 425 430
 Glu Leu Leu Asn Ser Ile Gly Phe Ser Thr Pro Glu Glu Lys Phe Gln
 435 440 445
 Lys Asp Pro Pro Phe Gln Trp Met Gly Tyr Glu Leu Trp Pro Thr Lys
 450 455 460
 Trp Lys Leu Gln Lys Ile Glu Leu Pro Gln Arg Glu Thr Trp Thr Val
 465 470 475 480
 Asn Asp Ile Gln Lys Leu Val Gly Val Leu Asn Trp Ala Ala Gln Ile
 485 490 495
 Tyr Pro Gly Ile Lys Thr Lys His Leu Gly Ile Lys Thr Lys His Leu
 500 505 510
 Cys Arg Leu Ile Arg Gly Lys Met Thr Leu Thr Glu Glu Val Gln Trp
 515 520 525
 Thr Glu Met Ala Glu Ala Glu Tyr Glu Glu Asn Lys Ile Ile Leu Ser
 530 535 540
 Gln Glu Gln Glu Gly Cys Tyr Tyr Gln Glu Gly Lys Pro Leu Glu Ala
 545 550 555 560
 Thr Val Ile Lys Ser Gln Asp Asn Gln Trp Ser Tyr Lys Ile His Gln

565										570										575													
Glu	Asp	Lys	Ile	Leu	Lys	Val	Gly	Lys	Phe	Ala	Lys	Ile	Lys	Asn	Thr																		
			580						585					590																			
His	Thr	Asn	Gly	Val	Arg	Leu	Leu	Ala	His	Val	Ile	Gln	Lys	Ile	Gly																		
		595					600					605																					
Lys	Glu	Ala	Ile	Val	Ile	Trp	Gly	Gln	Val	Pro	Lys	Phe	His	Leu	Pro																		
	610					615					620																						
Val	Glu	Lys	Asp	Val	Trp	Glu	Gln	Trp	Trp	Thr	Asp	Tyr	Trp	Gln	Val																		
	625				630					635					640																		
Thr	Trp	Ile	Pro	Glu	Trp	Asp	Phe	Ile	Ser	Thr	Pro	Pro	Leu	Val	Arg																		
				645					650					655																			
Leu	Val	Phe	Asn	Leu	Val	Lys	Asp	Pro	Ile	Glu	Gly	Glu	Glu	Thr	Tyr																		
			660					665					670																				
Tyr	Thr	Asp	Gly	Ile	Glu	Gly	Glu	Glu	Thr	Tyr	Tyr	Thr	Asp	Gly	Ser																		
		675					680					685																					
Cys	Asn	Lys	Gln	Ser	Lys	Glu	Gly	Lys	Ala	Gly	Tyr	Ile	Thr	Asp	Arg																		
	690					695					700																						
Gly	Lys	Asp	Lys	Val	Lys	Val	Leu	Glu	Gln	Thr	Thr	Asn	Gln	Gln	Ala																		
	705				710					715				720																			
Glu	Leu	Glu	Ala	Phe	Leu	Met	Ala	Leu	Thr	Asp	Ser	Gly	Pro	Lys	Ala																		
			725					730						735																			
Asn	Ile	Ile	Val	Asp	Ser	Gln	Tyr	Val	Met	Gly	Ile	Ile	Thr	Gly	Cys																		
			740				745						750																				
Pro	Thr	Glu	Ser	Glu	Ser	Arg	Leu	Val	Asn	Gln	Ile	Ile	Glu	Glu	Met																		
		755					760					765																					
Ile	Lys	Lys	Ser	Glu	Ile	Tyr	Val	Ala	Trp	Val	Pro	Ala	His	Lys	Gly																		
	770					775					780																						
Ile	Gly	Gly	Asn	Gln	Glu	Ile	Asp	His	Leu	Val	Ser	Gln	Gly	Ile	Arg																		
	785				790				795					800																			
Gln	Val	Leu	Phe	Leu	Glu	Lys	Ile	Glu	Pro	Ala	Gln	Glu	Glu	His	Asp																		
			805					810						815																			

Lys Tyr His Ser Asn Val Lys Glu Leu Val Phe Lys Phe Gly Leu Pro
 820 825 830

Arg Ile Val Ala Arg Gln Ile Val Asp Thr Cys Asp Lys Cys His Arg
 835 840 845

Gln Ile Val Asp Thr Cys Asp Lys Cys His Gln Lys Gly Glu Ala Ile
 850 855 860

His Gly Gln Ala Asn Ser Asp Leu Gly Thr Trp Gln Met Asp Cys Thr
 865 870 875 880

His Leu Glu Gly Lys Ile Ile Ile Val Ala Val His Val Ala Ser Gly
 885 890 895

Phe Ile Glu Ala Glu Val Ile Pro Gln Glu Thr Gly Arg Gln Thr Ala
 900 905 910

Leu Phe Leu Leu Lys Leu Ala Gly Arg Trp Pro Ile Thr His Leu His
 915 920 925

Thr Asp Asn Gly Ala Asn Phe Ala Ser Gln Glu Val Lys Met Val Ala
 930 935 940

Trp Trp Ala Gly Ile Glu His Thr Phe Gly Val Pro Tyr Asn Pro Gln
 945 950 955 960

Ser Gln Gly Val Val Glu Ala Met Asn His His Leu Lys Asn Gln Ile
 965 970 975

Asp Arg Ile Arg Glu Gln Ala Asn Ser Val Glu Thr Ile Val Leu Met
 980 985 990

Ala Val His Cys Met Asn Phe Lys Arg Arg Gly Gly Ile Gly Asp Met
 995 1000 1005

Thr Pro Ala Glu Arg Leu Ile Asn Met Ile Met Thr Pro Ala Glu
 1010 1015 1020

Arg Leu Ile Asn Met Ile Thr Thr Glu Gln Glu Ile Gln Phe Gln
 1025 1030 1035

Gln Ser Lys Asn Ser Lys Phe Lys Asn Phe Arg Val Tyr Tyr Arg
 1040 1045 1050

Glu Gly Arg Asp Gln Leu Trp Lys Gly Pro Gly Glu Leu Leu Trp
 1055 1060 1065

Lys Gly Glu Gly Ala Val Ile Leu Lys Val Gly Thr Asp Ile Lys
 1070 1075 1080

Val Val Pro Arg Arg Lys Ala Lys Ile Ile Lys Asp Tyr Gly Gly
 1085 1090 1095

Gly Lys Glu Val Asp Ser Ser Ser His Met Glu Asp Thr Gly Glu
 1100 1105 1110

Ala Arg Glu Val Ala
 1115

<210> 2186
 <211> 92
 <212> PRT
 <213> Simian immunodeficiency virus

<400> 2186

Met Gly Gly Ala Ile Ser Met Arg Arg Ser Arg Pro Ser Gly Asp Leu
 1 5 10 15

Arg Gln Arg Leu Leu Arg Ala Arg Gly Glu Thr Tyr Gly Arg Leu Leu
 20 25 30

Gly Glu Val Glu Asp Gly Tyr Ser Gln Ser Pro Gly Gly Leu Asp Lys
 35 40 45

Gly Leu Ser Ser Leu Ser Cys Glu Gly Gln Lys Tyr Asn Gln Gly Gln
 50 55 60

Tyr Met Asn Thr Pro Trp Arg Asn Pro Ala Glu Glu Arg Glu Lys Leu
 65 70 75 80

Ala Tyr Arg Lys Gln Asn Met Asp Asp Ile Asp Glu
 85 90

<210> 2187
 <211> 902
 <212> PRT
 <213> Simian immunodeficiency virus

<400> 2187

Met Arg Val Lys Gly Ile Arg Lys Asn Tyr Gln His Leu Trp Arg Gly
 1 5 10 15

Gly Thr Leu Leu Leu Gly Met Leu Met Ile Cys Ser Ala Val Glu Lys
 20 25 30
 Leu Trp Val Thr Val Tyr Tyr Gly Val Pro Ala Trp Lys Glu Ala Thr
 35 40 45
 Thr Thr Leu Phe Cys Ala Ser Asp Ala Lys Ala Tyr Asp Thr Glu Val
 50 55 60
 His Asn Val Trp Ala Thr His Ala Cys Val Pro Thr Asp Pro Asn Pro
 65 70 75 80
 Gln Glu Ile Val Leu Glu Asn Val Thr Glu Asn Phe Asn Met Trp Lys
 85 90 95
 Asn Asn Met Val Glu Gln Met His Glu Asp Ile Ile Ser Leu Trp Asp
 100 105 110
 Gln Ser Leu Glu Pro Cys Val Lys Leu Thr Pro Leu Cys Val Thr Leu
 115 120 125
 His Cys Thr Asn Leu Glu Asn Ala Thr Asn Thr Thr Ser Ser Asn Trp
 130 135 140
 Lys Glu Met Asn Arg Gly Glu Ile Lys Asn Cys Ser Phe Asn Val Thr
 145 150 155 160
 Thr Ser Ile Gly Asn Lys Met Gln Lys Glu Thr Thr Ser Ile Gly Asn
 165 170 175
 Lys Met Gln Lys Glu Tyr Ala Leu Phe Tyr Arg Leu Asp Val Val Pro
 180 185 190
 Ile Asp Asn Asp Asn Thr Ser Tyr Asn Leu Ile Asn Cys Asn Thr Ser
 195 200 205
 Val Ile Thr Gln Ala Cys Pro Lys Val Ser Phe Glu Pro Ile Pro Ile
 210 215 220
 His Tyr Cys Ala Pro Ala Gly Phe Ala Ile Leu Lys Cys Asn Asp Lys
 225 230 235 240
 Lys Phe Asn Gly Ser Gly Pro Cys Ile Asn Val Ser Thr Val Gln Cys
 245 250 255

Thr His Gly Ile Arg Pro Val Val Ser Thr Gln Leu Leu Leu Asn Gly
 260 265 270

Ser Leu Ala Glu Glu Gly Val Val Ile Arg Ser Glu Asn Phe Thr Asp
 275 280 285

Asn Val Lys Thr Ile Ile Val Gln Leu Lys Glu Ser Val Glu Ile Asn
 290 295 300

Cys Thr Arg Pro Asn Asn Asn Thr Arg Lys Ser Ile Pro Ile Gly Pro
 305 310 315 320

Gly Lys Ala Phe Tyr Ala Thr Gly Asp Ile Ile Gly Asp Ile Arg Gln
 325 330 335

Ala His Cys Asn Ile Ile Gly Asp Ile Arg Gln Ala His Cys Asn Ile
 340 345 350

Ser Gly Glu Lys Trp Asn Asn Thr Leu Lys Gln Ile Val Thr Lys Leu
 355 360 365

Gln Ala Gln Phe Glu Asn Lys Thr Ile Val Phe Lys Gln Ser Ser Gly
 370 375 380

Gly Asp Pro Glu Ile Val Met His Ser Phe Asn Cys Gly Gly Glu Phe
 385 390 395 400

Phe Tyr Cys Asn Ser Thr Gln Leu Phe Asn Ser Thr Trp Asn Asn Thr
 405 410 415

Ile Gly Pro Asn Asn Thr Asn Gly Thr Ile Thr Leu Pro Cys Arg Ile
 420 425 430

Lys Gln Ile Ile Asn Arg Trp Gln Glu Val Gly Lys Ala Met Tyr Ala
 435 440 445

Pro Pro Ile Arg Gly Gln Ile Arg Cys Ser Ser Asn Ile Thr Gly Leu
 450 455 460

Leu Leu Thr Arg Asp Gly Gly Arg Glu Val Gly Asn Thr Thr Glu Ile
 465 470 475 480

Phe Arg Pro Gly Gly Gly Asp Met Arg Asp Asn Trp Arg Ser Glu Leu
 485 490 495

Tyr Lys Tyr Lys Val Val Lys Ile Glu Pro Leu Gly Val Tyr Lys Val
 500 505 510
 Val Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys Ala Lys Arg Arg
 515 520 525
 Val Val Gln Arg Glu Lys Arg Ala Val Thr Leu Gly Ala Val Phe Leu
 530 535 540
 Gly Phe Leu Gly Ala Ala Gly Ser Thr Met Gly Ala Ala Ser Leu Thr
 545 550 555 560
 Leu Thr Val Gln Ala Arg Gln Leu Leu Ser Gly Ile Val Gln Gln Gln
 565 570 575
 Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln Arg Leu Leu Gln Leu
 580 585 590
 Thr Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Val Leu Ala Val Glu
 595 600 605
 Arg Tyr Leu Lys Asp Gln Gln Leu Leu Gly Ile Trp Gly Cys Ser Gly
 610 615 620
 Lys Leu Ile Cys Thr Thr Ala Val Pro Trp Asn Ala Ser Trp Ser Asn
 625 630 635 640
 Lys Ser Leu Asp Gln Ile Trp Asn Asn Met Thr Trp Met Glu Trp Glu
 645 650 655
 Arg Glu Ile Gly Asn Tyr Thr Asn Leu Ile Tyr Thr Leu Ile Glu Glu
 660 665 670
 Ser Gln Asn Gln Gln Glu Thr Leu Ile Glu Glu Ser Gln Asn Gln Gln
 675 680 685
 Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu
 690 695 700
 Trp Asn Trp Leu Asp Ile Ser Lys Trp Leu Trp Tyr Ile Lys Ile Phe
 705 710 715 720
 Ile Met Ile Val Gly Gly Leu Val Gly Leu Arg Ile Val Phe Thr Val
 725 730 735
 Leu Ser Ile Val Asn Arg Val Arg Gln Gly Tyr Ser Pro Leu Ser Phe

740

745

750

Gln Thr Arg Phe Pro Ala Pro Arg Gly Leu Asp Arg Pro Glu Gly Ile
 755 760 765

Glu Glu Glu Gly Gly Glu Arg Asp Arg Asp Arg Ser Arg Pro Leu Val
 770 775 780

His Gly Leu Leu Ala Leu Ile Trp Asp Asp Leu Arg Ser Leu Cys Leu
 785 790 795 800

Phe Ser Tyr His Arg Leu Arg Asp Leu Ile Leu Ile Ala Ala Arg Ile
 805 810 815

Val Glu Leu Leu Gly Arg Arg Gly Trp Glu Ala Leu Lys Tyr Trp Gly
 820 825 830

Asn Leu Leu Gln Tyr Trp Ile Gln Glu Leu Lys Asn Ser Ala Val Ser
 835 840 845

Trp Ile Gln Glu Leu Lys Asn Ser Ala Val Ser Leu Phe Gly Ala Ile
 850 855 860

Ala Ile Ala Val Ala Glu Gly Thr Asp Arg Ile Ile Glu Val Ala Gln
 865 870 875 880

Arg Ile Gly Arg Ala Phe Leu His Ile Pro Arg Arg Ile Arg Gln Gly
 885 890 895

Leu Glu Arg Thr Leu Leu
 900

<210> 2188

<211> 533

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 2188

Met Gly Ala Arg Ala Ser Val Leu Ser Gly Gly Glu Leu Asp Arg Trp
 1 5 10 15

Glu Lys Ile Arg Leu Arg Pro Gly Gly Lys Lys Lys Tyr Lys Leu Lys
 20 25 30

His Ile Val Trp Ala Ser Arg Glu Leu Glu Arg Phe Ala Val Asn Pro
 35 40 45

Gly Leu Leu Glu Thr Ser Glu Gly Cys Arg Gln Ile Leu Gly Gln Leu
 50 55 60

Gln Pro Ser Leu Gln Thr Gly Ser Glu Glu Leu Arg Ser Leu Tyr Asn
 65 70 75 80

Thr Val Ala Thr Leu Tyr Cys Val His Gln Arg Ile Glu Val Lys Asp
 85 90 95

Thr Lys Glu Ala Leu Glu Lys Ile Glu Glu Glu Gln Asn Lys Ser Lys
 100 105 110

Lys Lys Ala Gln Gln Ala Ala Ala Asp Thr Gly Asn Ser Ser Gln Val
 115 120 125

Ser Gln Asn Tyr Pro Ile Val Gln Asn Leu Gln Gly Gln Met Val His
 130 135 140

Gln Ala Ile Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Val Val Glu
 145 150 155 160

Glu Lys Ala Phe Ser Pro Glu Val Ile Pro Glu Glu Lys Ala Phe Ser
 165 170 175

Pro Glu Val Ile Pro Met Phe Ser Ala Leu Ser Glu Gly Ala Thr Pro
 180 185 190

Gln Asp Leu Asn Thr Met Leu Asn Thr Val Gly Gly His Gln Ala Ala
 195 200 205

Met Gln Met Leu Lys Glu Thr Ile Asn Glu Glu Ala Ala Glu Trp Asp
 210 215 220

Arg Leu His Pro Val His Ala Gly Pro Ile Ala Pro Gly Gln Met Arg
 225 230 235 240

Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr Thr Ser Thr Leu Gln Glu
 245 250 255

Gln Ile Gly Trp Met Thr Asn Asn Pro Pro Ile Pro Val Gly Glu Ile
 260 265 270

Tyr Lys Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile Val Arg Met Tyr
 275 280 285

Ser Pro Thr Ser Ile Leu Asp Ile Arg Gln Gly Pro Lys Glu Pro Phe
 290 295 300
 Arg Asp Tyr Val Asp Arg Phe Tyr Lys Thr Leu Arg Ala Glu Gln Ala
 305 310 315 320
 Ser Gln Glu Val Lys Asn Trp Met Thr Glu Thr Leu Leu Val Gln Asn
 325 330 335
 Ala Asn Pro Asp Glu Thr Leu Leu Val Gln Asn Ala Asn Pro Asp Cys
 340 345 350
 Lys Thr Ile Leu Lys Ala Leu Gly Pro Ala Ala Thr Leu Glu Glu Met
 355 360 365
 Met Thr Ala Cys Gln Gly Val Gly Gly Pro Gly His Lys Ala Arg Val
 370 375 380
 Leu Ala Glu Ala Met Ser Gln Val Thr Asn Ser Ala Thr Ile Met Met
 385 390 395 400
 Gln Arg Gly Asn Phe Arg Asn Gln Arg Lys Thr Val Lys Cys Phe Asn
 405 410 415
 Cys Gly Lys Glu Gly His Ile Ala Lys Asn Cys Arg Ala Pro Arg Lys
 420 425 430
 Lys Gly Cys Trp Lys Cys Gly Lys Glu Gly His Gln Met Lys Asp Cys
 435 440 445
 Thr Glu Arg Gln Ala Asn Phe Leu Gly Lys Ile Trp Pro Ser His Lys
 450 455 460
 Gly Arg Pro Gly Asn Phe Leu Gln Ser Arg Pro Glu Pro Thr Ala Pro
 465 470 475 480
 Pro Glu Glu Ser Phe Arg Phe Gly Glu Glu Thr Thr Thr Pro Ser Gln
 485 490 495
 Lys Gln Glu Pro Ile Asp Lys Glu Leu Tyr Pro Leu Ala Glu Pro Ile
 500 505 510
 Asp Lys Glu Leu Tyr Pro Leu Ala Ser Leu Arg Ser Leu Phe Gly Asn
 515 520 525
 Asp Pro Ser Ser Gln

530

<210> 2189
 <211> 217
 <212> PRT
 <213> Human immunodeficiency virus type 1

<400> 2189

Met Gly Gly Lys Trp Ser Lys Arg Ser Val Val Gly Trp Pro Thr Val
 1 5 10 15

Arg Glu Arg Met Arg Arg Ala Glu Pro Ala Ala Asp Gly Val Gly Ala
 20 25 30

Val Ser Arg Asp Leu Glu Lys His Gly Ala Ile Thr Ser Ser Asn Thr
 35 40 45

Ala Ala Asn Asn Ala Asp Cys Ala Trp Leu Glu Ala Gln Glu Glu Glu
 50 55 60

Glu Val Gly Phe Pro Val Arg Pro Gln Val Pro Leu Arg Pro Met Thr
 65 70 75 80

Tyr Lys Ala Ala Val Asp Leu Ser His Phe Leu Lys Glu Lys Gly Gly
 85 90 95

Leu Glu Gly Leu Ile Tyr Ser Gln Lys Arg Gln Asp Ile Leu Asp Leu
 100 105 110

Trp Val Tyr His Thr Gln Gly Tyr Phe Pro Asp Trp Gln Asn Tyr Thr
 115 120 125

Pro Gly Pro Gly Ile Arg Tyr Pro Leu Thr Phe Gly Trp Cys Phe Lys
 130 135 140

Leu Val Pro Val Glu Pro Glu Lys Val Glu Glu Ala Asn Glu Gly Glu
 145 150 155 160

Asn Asn Ser Leu Leu His Pro Met Ser Leu His Asn Asn Ser Leu Leu
 165 170 175

His Pro Met Ser Leu His Gly Met Asp Asp Pro Glu Arg Glu Val Leu
 180 185 190

Val Trp Lys Phe Asp Ser Arg Leu Ala Phe His His Met Ala Arg Glu
 195 200 205

Leu His Pro Glu Tyr Tyr Lys Asp Cys
 210 215

<210> 2190
 <211> 1068
 <212> PRT
 <213> Human immunodeficiency virus type 1

<400> 2190

Phe Phe Arg Glu Asp Leu Ala Phe Pro Gln Gly Lys Ala Arg Glu Phe
 1 5 10 15

Ser Ser Glu Gln Thr Arg Ala Asn Ser Pro Thr Arg Arg Glu Leu Gln
 20 25 30

Val Trp Gly Arg Asp Asn Asn Ser Leu Ser Glu Ala Gly Ala Asp Arg
 35 40 45

Gln Gly Thr Val Ser Phe Ser Phe Pro Gln Ile Thr Leu Trp Gln Arg
 50 55 60

Pro Leu Val Thr Ile Lys Ile Gly Gly Gln Leu Lys Glu Ala Leu Leu
 65 70 75 80

Asp Thr Gly Ala Asp Asp Thr Val Leu Glu Glu Met Asn Leu Pro Gly
 85 90 95

Arg Trp Lys Pro Lys Met Ile Gly Gly Ile Gly Gly Phe Ile Lys Val
 100 105 110

Arg Gln Tyr Asp Gln Ile Leu Ile Glu Ile Cys Gly His Lys Ala Ile
 115 120 125

Gly Thr Val Leu Val Gly Pro Thr Pro Val Asn Ile Ile Gly Arg Asn
 130 135 140

Leu Leu Thr Gln Ile Gly Cys Thr Leu Asn Phe Pro Ile Ser Pro Ile
 145 150 155 160

Glu Thr Val Pro Val Lys Leu Lys Pro Gly Met Glu Thr Val Pro Val
 165 170 175

Lys Leu Lys Pro Gly Met Asp Gly Pro Lys Val Lys Gln Trp Pro Leu
 180 185 190

Thr Glu Glu Lys Ile Lys Ala Leu Val Glu Ile Cys Thr Glu Met Glu

195	200	205
Lys Glu Gly Lys Ile Ser Lys Ile Gly Pro Glu Asn Pro Tyr Asn Thr 210 215 220		
Pro Val Phe Ala Ile Lys Lys Lys Asp Ser Thr Lys Trp Arg Lys Leu 225 230 240		
Val Asp Phe Arg Glu Leu Asn Lys Arg Thr Gln Asp Phe Trp Glu Val 245 250 255		
Gln Leu Gly Ile Pro His Pro Ala Gly Leu Lys Lys Lys Lys Ser Val 260 265 270		
Thr Val Leu Asp Val Gly Asp Ala Tyr Phe Ser Val Pro Leu Asp Lys 275 280 285		
Asp Phe Arg Lys Tyr Thr Ala Phe Thr Ile Pro Ser Ile Asn Asn Glu 290 295 300		
Thr Pro Gly Ile Arg Tyr Gln Tyr Asn Val Leu Pro Gln Gly Trp Lys 305 310 315 320		
Gly Ser Pro Ala Ile Phe Gln Ser Ser Met Thr Lys Ile Leu Glu Pro 325 330 335		
Phe Arg Lys Gln Asn Pro Lys Ile Leu Glu Pro Phe Arg Lys Gln Asn 340 345 350		
Pro Asp Ile Val Ile Tyr Gln Tyr Met Asp Asp Leu Tyr Val Gly Ser 355 360 365		
Asp Leu Glu Ile Gly Gln His Arg Thr Lys Ile Glu Glu Leu Arg Gln 370 375 380		
His Leu Leu Arg Trp Gly Phe Thr Thr Pro Asp Lys Lys His Gln Lys 385 390 395 400		
Glu Pro Pro Phe Leu Trp Met Gly Tyr Glu Leu His Pro Asp Lys Trp 405 410 415		
Thr Val Gln Pro Ile Val Leu Pro Glu Lys Asp Ser Trp Thr Val Asn 420 425 430		
Asp Ile Gln Lys Leu Val Gly Lys Leu Asn Trp Ala Ser Gln Ile Tyr 435 440 445		

Ala Gly Ile Lys Val Lys Gln Leu Cys Lys Leu Leu Arg Gly Thr Lys
 450 455 460
 Ala Leu Thr Glu Val Ile Pro Leu Thr Glu Glu Ala Glu Leu Glu Leu
 465 470 475 480
 Ala Glu Asn Arg Glu Ile Leu Lys Glu Pro Val His Gly Val Tyr Tyr
 485 490 495
 Asp Pro Ser Lys Asp Leu Ile Ala Glu Ile Gln Lys Gln Gly Gln Gly
 500 505 510
 Gln Ile Ala Glu Ile Gln Lys Gln Gly Gln Gly Gln Trp Thr Tyr Gln
 515 520 525
 Ile Tyr Gln Glu Pro Phe Lys Asn Leu Lys Thr Gly Lys Tyr Ala Arg
 530 535 540
 Met Arg Gly Ala His Thr Asn Asp Val Lys Gln Leu Thr Glu Ala Val
 545 550 555 560
 Gln Lys Ile Ala Thr Glu Ser Ile Val Ile Trp Gly Lys Thr Pro Lys
 565 570 575
 Phe Lys Leu Pro Ile Gln Lys Glu Thr Trp Glu Ala Trp Trp Thr Glu
 580 585 590
 Tyr Trp Gln Ala Thr Trp Ile Pro Glu Trp Glu Phe Val Asn Thr Pro
 595 600 605
 Pro Leu Val Lys Leu Trp Tyr Gln Leu Glu Lys Glu Pro Ile Val Gly
 610 615 620
 Ala Glu Thr Phe Tyr Val Asp Gly Ala Ala Asn Arg Glu Thr Lys Leu
 625 630 635 640
 Gly Lys Ala Gly Tyr Val Thr Asp Arg Gly Arg Gln Lys Val Val Ser
 645 650 655
 Leu Thr Asp Thr Thr Asn Gln Lys Thr Glu Leu Gln Ala Ile His Leu
 660 665 670
 Ala Leu Gln Asp Ser Gly Leu Glu Val Asn Ile Val Leu Gln Asp Ser
 675 680 685

Gly Leu Glu Val Asn Ile Val Thr Asp Ser Gln Tyr Ala Leu Gly Ile
 690 695 700

Ile Gln Ala Gln Pro Asp Lys Ser Glu Ser Glu Leu Val Ser Gln Ile
 705 710 715 720

Ile Glu Gln Leu Ile Lys Lys Glu Lys Val Tyr Leu Ala Trp Val Pro
 725 730 735

Ala His Lys Gly Ile Gly Gly Asn Glu Gln Val Asp Lys Leu Val Ser
 740 745 750

Ala Gly Ile Arg Lys Val Leu Phe Leu Asp Gly Ile Asp Lys Ala Gln
 755 760 765

Glu Glu His Glu Lys Tyr His Ser Asn Trp Arg Ala Met Ala Ser Asp
 770 775 780

Phe Asn Leu Pro Pro Val Val Ala Lys Glu Ile Val Ala Ser Cys Asp
 785 790 795 800

Lys Cys Gln Leu Lys Gly Glu Ala Met His Gly Gln Val Asp Cys Ser
 805 810 815

Pro Gly Ile Trp Gln Leu Asp Cys Thr His Leu Glu Gly Lys Ile Ile
 820 825 830

Leu Val Ala Val His Val Ala Ser Gly Tyr Ile Glu Ala Glu Val Ile
 835 840 845

Pro Ala Glu Thr Gly Gln Glu Ala Glu Val Ile Pro Ala Glu Thr Gly
 850 855 860

Gln Glu Thr Ala Tyr Phe Leu Leu Lys Leu Ala Gly Arg Trp Pro Val
 865 870 875 880

Lys Thr Ile His Thr Asp Asn Gly Ser Asn Phe Thr Ser Thr Thr Val
 885 890 895

Lys Ala Ala Cys Trp Trp Ala Gly Ile Lys Gln Glu Phe Gly Ile Pro
 900 905 910

Tyr Asn Pro Gln Ser Gln Gly Val Val Glu Ser Met Asn Lys Glu Leu
 915 920 925

Lys Lys Ile Ile Gly Gln Val Arg Asp Gln Ala Glu His Leu Lys Thr
 930 935 940

Ala Val Gln Met Ala Val Phe Ile His Asn Phe Lys Arg Lys Gly Gly
 945 950 955 960

Ile Gly Gly Tyr Ser Ala Gly Glu Arg Ile Val Asp Ile Ile Ala Thr
 965 970 975

Asp Ile Gln Thr Lys Glu Leu Gln Lys Gln Ile Thr Lys Ile Gln Asn
 980 985 990

Phe Arg Val Tyr Arg Asp Ser Arg Asp Pro Leu Trp Lys Gly Pro Ala
 995 1000 1005

Lys Leu Leu Trp Lys Gly Glu Gly Ala Val Val Ile Gln Asp Asn
 1010 1015 1020

Ser Asp Ile Gly Ala Val Val Ile Gln Asp Asn Ser Asp Ile Lys
 1025 1030 1035

Val Val Pro Arg Arg Lys Ala Lys Ile Ile Arg Asp Tyr Gly Lys
 1040 1045 1050

Gln Met Ala Gly Asp Asp Cys Val Ala Ser Arg Gln Asp Glu Asp
 1055 1060 1065

<210> 2191
 <211> 117
 <212> PRT
 <213> Human immunodeficiency virus type 1

<400> 2191

Met Ala Gly Arg Ser Gly Asp Ser Asp Glu Glu Leu Leu Lys Thr Val
 1 5 10 15

Arg Leu Ile Lys Phe Leu Tyr Gln Ser Asn Pro Pro Pro Ser Pro Glu
 20 25 30

Gly Thr Arg Gln Ala Arg Arg Asn Arg Arg Arg Arg Trp Arg Glu Arg
 35 40 45

Gln Arg Gln Ile Arg Ser Ile Ser Glu Trp Ile Leu Ser Thr Tyr Leu
 50 55 60

Gly Arg Pro Ala Glu Pro Val Pro Leu Gln Leu Pro Pro Leu Glu Arg
 65 70 75 80

Leu Thr Leu Asp Cys Asn Glu Asp Cys Gly Thr Ser Gly Thr Gln Gly
 85 90 95

Val Gly Ser Pro Gln Ile Leu Val Glu Ser Pro Ala Val Leu Glu Ser
 100 105 110

Gly Thr Lys Glu Glu
 115

<210> 2192
 <211> 102
 <212> PRT
 <213> Human immunodeficiency virus type 1

<400> 2192

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
 1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
 20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Gly Leu Gly Ile Ser Tyr Gly
 35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Ala Pro Gln Asp Ser Gln Thr
 50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Ala Ser Gln Pro Arg Gly Asp
 65 70 75 80

Pro Thr Gly Pro Lys Glu Ser Lys Lys Lys Val Glu Arg Glu Thr Glu
 85 90 95

Thr Asp Pro Val Asp Gln
 100

<210> 2193
 <211> 203
 <212> PRT
 <213> Human immunodeficiency virus type 1

<400> 2193

Met Glu Asn Arg Trp Gln Val Met Ile Val Trp Gln Val Asp Arg Met
 1 5 10 15

Arg Ile Arg Thr Trp Lys Ser Leu Val Lys His His Met Tyr Ile Ser

20 25 30
 Arg Lys Ala Lys Gly Trp Phe Tyr Arg His His Tyr Glu Ser Thr His
 35 40 45
 Pro Arg Ile Ser Ser Glu Val His Ile Pro Leu Gly Asp Ala Arg Leu
 50 55 60
 Val Ile Thr Thr Tyr Trp Gly Leu His Thr Gly Glu Arg Asp Trp His
 65 70 75 80
 Leu Gly Gln Gly Val Ser Ile Glu Trp Arg Lys Lys Arg Tyr Ser Thr
 85 90 95
 Gln Val Asp Pro Asp Leu Ala Asp Gln Leu Ile His Leu Tyr Tyr Phe
 100 105 110
 Asp Cys Phe Ser Glu Ser Ala Ile Arg Asn Ala Ile Leu Gly His Ile
 115 120 125
 Val Ser Pro Arg Cys Glu Tyr Gln Ala Gly His Asn Lys Val Gly Ser
 130 135 140
 Leu Gln Tyr Leu Ala Leu Ala Ala Leu Ile Thr Pro Lys Lys Ile Lys
 145 150 155 160
 Pro Pro Leu Pro Ser Val Thr Lys Leu Thr Glu Pro Pro Leu Pro Ser
 165 170 175
 Val Thr Lys Leu Thr Glu Asp Arg Trp Asn Lys Pro Gln Lys Thr Lys
 180 185 190
 Gly His Arg Gly Ser His Thr Met Asn Gly His
 195 200

<210> 2194

<211> 96

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 2194

Met Glu Gln Ala Pro Glu Asp Gln Gly Pro Gln Arg Glu Pro Tyr Asn
 1 5 10 15

Glu Trp Thr Leu Glu Leu Leu Glu Glu Leu Lys Ser Glu Ala Val Arg
 20 25 30

His Phe Pro Arg Ile Trp Leu His Gly Leu Gly Gln His Ile Tyr Glu
 35 40 45

Thr Tyr Gly Asp Thr Trp Ala Gly Val Glu Ala Ile Ile Arg Ile Leu
 50 55 60

Gln Gln Leu Leu Phe Ile His Phe Arg Ile Gly Cys Gln His Ser Arg
 65 70 75 80

Ile Gly Ile Thr Arg Gln Arg Arg Ala Arg Asn Gly Ala Ser Arg Ser
 85 90 95

<210> 2195

<211> 81

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 2195

Met Gln Ser Leu Gln Ile Leu Ala Ile Val Ala Leu Val Val Ala Ala
 1 5 10 15

Ile Ile Ala Ile Val Val Trp Ser Ile Val Phe Ile Glu Tyr Arg Lys
 20 25 30

Ile Leu Arg Gln Arg Lys Ile Asp Arg Leu Ile Asp Arg Ile Arg Glu
 35 40 45

Arg Ala Glu Asp Ser Gly Asn Glu Ser Glu Gly Asp Gln Glu Glu Leu
 50 55 60

Ser Ala Leu Val Glu Met Gly His His Ala Pro Trp Asp Val Asp Asp
 65 70 75 80

Leu

<210> 2196

<211> 3261

<212> PRT

<213> Hepatitis C virus

<400> 2196

Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn
 1 5 10 15

Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gly Gln Ile Val Gly
 20 25 30

Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala
 35 40 45
 Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro
 50 55 60
 Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly
 65 70 75 80
 Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp
 85 90 95
 Leu Leu Ser Pro Arg Gly Ser Arg Pro Ser Trp Gly Pro Thr Asp Pro
 100 105 110
 Arg Arg Arg Ser Arg Asn Leu Gly Lys Val Ile Asp Thr Leu Thr Cys
 115 120 125
 Gly Phe Ala Asp Leu Met Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu
 130 135 140
 Gly Gly Ala Ala Arg Ala Leu Gly Ala Pro Leu Gly Gly Ala Ala Arg
 145 150 155 160
 Ala Leu Ala His Gly Val Arg Val Leu Glu Asp Gly Val Asn Tyr Ala
 165 170 175
 Thr Gly Asn Leu Pro Gly Cys Ser Phe Ser Ile Phe Leu Leu Ala Leu
 180 185 190
 Leu Ser Cys Leu Thr Val Pro Ala Ser Ala Tyr Gln Val Arg Asn Ser
 195 200 205
 Ser Gly Leu Tyr His Val Thr Asn Asp Cys Pro Asn Ser Ser Ile Val
 210 215 220
 Tyr Glu Ala Ala Asp Ala Ile Leu His Thr Pro Gly Cys Val Pro Cys
 225 230 235 240
 Val Arg Glu Gly Asn Ala Ser Arg Cys Trp Val Ala Val Thr Pro Thr
 245 250 255
 Val Ala Thr Arg Asn Ala Ser Arg Cys Trp Val Ala Val Thr Pro Thr
 260 265 270

Val Ala Thr Arg Asp Gly Lys Leu Pro Thr Thr Gln Leu Arg Arg His
 275 280 285
 Ile Asp Leu Leu Val Gly Ser Ala Thr Leu Cys Ser Ala Leu Tyr Val
 290 295 300
 Gly Asp Leu Cys Gly Ser Val Ala Leu Tyr Val Gly Asp Leu Cys Gly
 305 310 315 320
 Ser Val Phe Leu Val Gly Gln Leu Phe Thr Phe Ser Pro Arg Arg His
 325 330 335
 Trp Thr Thr Gln Asp Cys Asn Cys Ser Ile Tyr Pro Gly His Ile Thr
 340 345 350
 Gly His Arg Met Ala Trp Asp Met Met Met Asn Trp Ser Pro Thr Ala
 355 360 365
 Ala Leu Val Val Ala Gln Leu Leu Arg Ile Pro Gln Ala Ile Met Asp
 370 375 380
 Met Ile Ala Gly Ala His Trp Gly Val Leu Ala Gly Ile Ala Tyr Phe
 385 390 395 400
 Ser Met Val Gly Asn Trp Ala Lys Val Leu Val Val Leu Leu Leu Phe
 405 410 415
 Ala Gly Val Asp Ala Glu Thr His Val Thr Gly Gly Ser Ala Gly Arg
 420 425 430
 Thr Thr Ala Gly Leu Val Gly Leu Leu Thr Pro Gly Ala Lys Gln Asn
 435 440 445
 Ile Gln Leu Ile Asn Thr Asn Gly Ser Trp His Ile Asn Ser Ile Asn
 450 455 460
 Thr Asn Gly Ser Trp His Ile Asn Ser Thr Ala Leu Asn Cys Asn Glu
 465 470 475 480
 Ser Leu Asn Thr Gly Trp Leu Ala Gly Leu Phe Tyr Gln His Lys Phe
 485 490 495
 Asn Ser Ser Gly Cys Pro Glu Arg Leu Ala Ser Cys Arg Arg Leu Thr
 500 505 510

Asp Phe Ala Gln Gly Trp Gly Pro Ile Ser Tyr Ala Asn Gly Ser Gly
 515 520 525

Leu Asp Glu Arg Pro Tyr Cys Trp His Tyr Pro Pro Arg Pro Cys Gly
 530 535 540

Ile Val Pro Ala Lys Ser Val Cys Gly Pro Val Tyr Cys Phe Thr Pro
 545 550 555 560

Ser Pro Val Val Val Gly Thr Thr Asp Arg Ser Gly Ala Pro Thr Tyr
 565 570 575

Ser Trp Gly Ala Asn Asp Thr Asp Val Phe Val Leu Asn Asn Thr Arg
 580 585 590

Pro Pro Leu Gly Asn Trp Phe Gly Cys Thr Trp Met Asn Ser Thr Gly
 595 600 605

Phe Thr Lys Val Cys Trp Met Asn Ser Thr Gly Phe Thr Lys Val Cys
 610 615 620

Gly Ala Pro Pro Cys Val Ile Gly Gly Val Gly Asn Asn Thr Leu Leu
 625 630 635 640

Cys Pro Thr Asp Cys Phe Arg Lys His Pro Glu Ala Thr Tyr Ser Arg
 645 650 655

Cys Gly Ser Gly Pro Trp Ile Thr Pro Arg Cys Met Val Asp Tyr Pro
 660 665 670

Tyr Arg Leu Trp His Tyr Pro Cys Thr Ile Asn Tyr Thr Ile Phe Lys
 675 680 685

Val Arg Met Tyr Val Gly Gly Val Glu His Arg Leu Glu Ala Ala Cys
 690 695 700

Asn Trp Thr Arg Gly Glu Arg Cys Asp Leu Glu Asp Arg Asp Arg Ser
 705 710 715 720

Glu Leu Ser Pro Leu Leu Leu Ser Thr Thr Gln Trp Gln Val Leu Pro
 725 730 735

Cys Ser Phe Thr Thr Leu Pro Ala Leu Ser Thr Gly Leu Ile His Leu
 740 745 750

His Gln Asn Ile Val Asp Val Gln Tyr Leu Tyr Gly Gln Asn Ile Val

755	760	765
Asp Val Gln Tyr Leu Tyr Gly Val Gly Ser Ser Ile Ala Ser Trp Ala 770 775 780		
Ile Lys Trp Glu Tyr Val Val Leu Leu Phe Leu Leu Leu Ala Asp Ala 785 790 795 800		
Arg Val Cys Ser Cys Leu Trp Met Met Leu Leu Ile Ser Gln Ala Glu 805 810 815		
Ala Ala Leu Glu Asn Leu Val Ile Leu Asn Ala Ala Ser Leu Ala Gly 820 825 830		
Thr His Gly Leu Val Ser Phe Leu Val Phe Phe Cys Phe Ala Trp Tyr 835 840 845		
Leu Lys Gly Arg Trp Val Pro Gly Ala Val Tyr Ala Phe Tyr Gly Met 850 855 860		
Trp Pro Leu Leu Leu Leu Leu Leu Ala Leu Pro Gln Arg Ala Tyr Ala 865 870 875 880		
Leu Asp Thr Glu Val Ala Ala Ser Cys Gly Gly Val Val Leu Val Gly 885 890 895		
Leu Met Ala Leu Thr Leu Ser Pro Tyr Tyr Lys Arg Tyr Ile Ser Trp 900 905 910		
Cys Met Trp Tyr Tyr Lys Arg Tyr Ile Ser Trp Cys Met Trp Trp Leu 915 920 925		
Gln Tyr Phe Leu Thr Arg Val Glu Ala Gln Leu His Val Trp Val Pro 930 935 940		
Pro Leu Asn Val Arg Gly Gly Arg Asp Ala Val Ile Leu Leu Met Cys 945 950 955 960		
Val Val His Pro Thr Leu Val Phe Asp Ile Thr Lys Leu Leu Leu Ala 965 970 975		
Ile Phe Gly Pro Leu Trp Ile Leu Gln Ala Ser Leu Leu Lys Val Pro 980 985 990		
Tyr Phe Val Arg Val Gln Gly Leu Leu Arg Ile Cys Ala Leu Ala Arg 995 1000 1005		

Lys Ile Ala Gly Gly His Tyr Val Gln Met Ala Ile Ile Lys Leu
 1010 1015 1020
 Gly Ala Leu Thr Gly Thr Tyr Val Tyr Asn His Leu Thr Pro Leu
 1025 1030 1035
 Arg Asp Trp Ala His Asn Gly Leu Arg Asp Leu Ala Val Ala Val
 1040 1045 1050
 Glu Pro Val Val Phe Ser Arg Met Glu Thr Lys Leu Ile Val Val
 1055 1060 1065
 Phe Ser Arg Met Glu Thr Lys Leu Ile Thr Trp Gly Ala Asp Thr
 1070 1075 1080
 Ala Ala Cys Gly Asp Ile Ile Asn Gly Leu Pro Val Ser Ala Arg
 1085 1090 1095
 Arg Gly Gln Glu Ile Leu Leu Gly Pro Ala Asp Gly Met Val Ser
 1100 1105 1110
 Lys Gly Trp Arg Leu Leu Ala Pro Ile Thr Ala Tyr Ala Gln Gln
 1115 1120 1125
 Thr Arg Gly Leu Leu Gly Cys Ile Ile Thr Ser Leu Thr Gly Arg
 1130 1135 1140
 Asp Lys Asn Gln Val Glu Gly Glu Val Gln Ile Val Ser Thr Ala
 1145 1150 1155
 Thr Gln Thr Phe Leu Ala Thr Cys Ile Asn Gly Val Cys Trp Thr
 1160 1165 1170
 Val Tyr His Gly Ala Gly Thr Arg Thr Ile Ala Ser Pro Lys Gly
 1175 1180 1185
 Pro Val Ile Gln Met Tyr Thr Asn Val Asp Gln Asp Leu Val Gly
 1190 1195 1200
 Trp Pro Ala Pro Gln Gly Ser Asp Leu Val Gly Trp Pro Ala Pro
 1205 1210 1215
 Gln Gly Ser Arg Ser Leu Thr Pro Cys Thr Cys Gly Ser Ser Asp
 1220 1225 1230

Leu Tyr 1235	Leu Val Thr Arg 1240	His 1240	Ala Asp Val Ile 1245	Pro Val Arg Arg 1245
Arg Gly 1250	Asp Ser Arg Gly 1255	Ser 1255	Leu Leu Ser Pro 1260	Arg Pro Ile Ser 1260
Tyr Leu 1265	Lys Gly Ser Ser 1270	Gly 1270	Gly Pro Leu Leu 1275	Cys Pro Ala Gly 1275
His Ala 1280	Val Gly Leu Phe 1285	Arg 1285	Ala Ala Val Cys 1290	Thr Arg Gly Val 1290
Ala Lys 1295	Ala Val Asp Phe 1300	Ile 1300	Pro Val Glu Asn 1305	Leu Glu Thr Thr 1305
Met Arg 1310	Ser Pro Val Phe 1315	Thr 1315	Asp Asn Ser Ser 1320	Pro Pro Ala Val 1320
Pro Gln 1325	Ser Phe Gln Val 1330	Ala 1330	His Leu His Ala 1335	Pro Thr Gly Ser 1335
Gly Lys 1340	Ser Thr Lys Val 1345	Pro 1345	Ala Ala Tyr Ala 1350	Ala Gln Gly Tyr 1350
Lys Val 1355	Leu Val Leu Asn 1360	Pro 1360	Ser Gln Gly Tyr 1365	Lys Val Leu Val 1365
Leu Asn 1370	Pro Ser Val Ala 1375	Ala 1375	Thr Leu Gly Phe 1380	Gly Ala Tyr Met 1380
Ser Lys 1385	Ala His Gly Val 1390	Asp 1390	Pro Asn Ile Arg 1395	Thr Gly Val Arg 1395
Thr Ile 1400	Thr Thr Gly Ser 1405	Pro 1405	Ile Thr Tyr Ser 1410	Thr Tyr Gly Lys 1410
Phe Leu 1415	Ala Asp Gly Gly 1420	Cys 1420	Ser Gly Gly Ala 1425	Tyr Asp Ile Ile 1425
Ile Cys 1430	Asp Glu Cys His 1435	Ser 1435	Thr Asp Ala Thr 1440	Ser Ile Leu Gly 1440
Ile Gly 1445	Thr Val Leu Asp 1450	Gln 1450	Ala Glu Thr Ala 1455	Gly Ala Arg Leu 1455

Val Val Leu Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Ser
 1460 1465 1470
 His Pro Asn Ile Glu Glu Val Ala Leu Ser Thr Thr Gly Glu Ile
 1475 1480 1485
 Pro Phe Tyr Gly Lys Ala Ile Pro Leu Glu Val Ile Lys Gly Gly
 1490 1495 1500
 Arg His Leu Ile Phe Cys His Ser Lys Gly Gly Arg His Leu Ile
 1505 1510 1515
 Phe Cys His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu
 1520 1525 1530
 Val Ala Leu Gly Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp
 1535 1540 1545
 Val Ser Val Ile Pro Thr Ser Gly Asp Val Val Val Val Ser Thr
 1550 1555 1560
 Asp Ala Leu Met Thr Gly Phe Thr Gly Asp Phe Asp Ser Val Ile
 1565 1570 1575
 Asp Cys Asn Thr Cys Val Thr Gln Thr Val Asp Phe Ser Leu Asp
 1580 1585 1590
 Pro Thr Phe Thr Ile Glu Thr Thr Thr Leu Pro Gln Asp Ala Val
 1595 1600 1605
 Ser Arg Thr Gln Arg Arg Gly Arg Thr Gly Arg Gly Lys Pro Gly
 1610 1615 1620
 Ile Tyr Arg Phe Val Ala Pro Gly Glu Arg Pro Ser Gly Met Phe
 1625 1630 1635
 Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala Gly Cys Ala Trp
 1640 1645 1650
 Tyr Glu Leu Thr Pro Ala Glu Gly Cys Ala Trp Tyr Glu Leu Thr
 1655 1660 1665
 Pro Ala Glu Thr Thr Val Arg Leu Arg Ala Tyr Met Asn Thr Pro
 1670 1675 1680
 Gly Leu Pro Val Cys Gln Asp His Leu Glu Phe Trp Glu Gly Val

1685		1690		1695
Phe Thr Gly Leu Thr His Ile Asp Ala His Phe Leu Ser Gln Thr 1700 1705 1710				
Lys Gln Ser Gly Glu Asn Phe Pro Tyr Leu Val Ala Tyr Gln Ala 1715 1720 1725				
Thr Val Cys Ala Arg Ala Gln Ala Pro Pro Pro Ser Trp Asp Gln 1730 1735 1740				
Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr Leu His Gly Pro 1745 1750 1755				
Thr Pro Leu Leu Tyr Arg Leu Gly Ala Val Gln Asn Glu Val Thr 1760 1765 1770				
Leu Thr His Pro Ile Thr Lys Tyr Ile Met Thr Cys Met Ser Ala 1775 1780 1785				
Asp Leu Glu Val Val Thr Ser Thr Trp Val Leu Val Gly Gly Val 1790 1795 1800				
Leu Ala Ala Leu Trp Val Leu Val Gly Gly Val Leu Ala Ala Leu 1805 1810 1815				
Ala Ala Tyr Cys Leu Ser Thr Gly Cys Val Val Ile Val Gly Arg 1820 1825 1830				
Ile Val Leu Ser Gly Lys Pro Ala Ile Ile Pro Asp Arg Glu Val 1835 1840 1845				
Leu Tyr Gln Glu Phe Asp Glu Met Glu Glu Cys Ser Gln His Leu 1850 1855 1860				
Pro Tyr Ile Glu Gln Gly Met Met Leu Ala Glu Gln Phe Lys Gln 1865 1870 1875				
Lys Ala Leu Gly Leu Leu Gln Thr Ala Ser Arg Gln Ala Glu Val 1880 1885 1890				
Ile Thr Pro Ala Val Gln Thr Asn Trp Gln Lys Leu Glu Val Phe 1895 1900 1905				
Trp Ala Lys His Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu 1910 1915 1920				

Ala Gly 1925	Leu Ser Thr Leu Pro 1930	Gly Asn Pro Ala Ile 1935	Ala Ser Leu
Met Ala 1940	Phe Thr Ala Ala Ala 1945	Ile Ala Ser Leu Met 1950	Ala Phe Thr
Ala Ala 1955	Val Thr Ser Pro Leu 1960	Thr Thr Gly Gln Thr 1965	Leu Leu Phe
Asn Ile 1970	Leu Gly Gly Trp Val 1975	Ala Ala Gln Leu Ala 1980	Ala Pro Gly
Ala Ala 1985	Thr Ala Phe Val Gly 1990	Ala Gly Leu Ala Gly 1995	Ala Ala Ile
Gly Ser 2000	Val Gly Leu Gly Lys 2005	Val Leu Val Asp Ile 2010	Leu Ala Gly
Tyr Gly 2015	Ala Gly Val Ala Gly 2020	Ala Leu Val Ala Phe 2025	Lys Ile Met
Ser Gly 2030	Glu Val Pro Ser Thr 2035	Glu Asp Leu Val Asn 2040	Leu Leu Pro
Ala Ile 2045	Leu Ser Pro Gly Ala 2050	Leu Val Val Gly Val 2055	Val Cys Ala
Ala Ile 2060	Leu Arg Arg His Val 2065	Gly Pro Gly Glu Gly 2070	Ala Val Gln
Trp Met 2075	Asn Arg Leu Ile Ala 2080	Phe Ala Ser Arg Gly 2085	Asn His Val
Ser Pro 2090	Thr His Tyr Val Pro 2095	Gly Asn His Val Ser 2100	Pro Thr His
Tyr Val 2105	Pro Glu Ser Asp Ala 2110	Ala Ala Arg Val Thr 2115	Ala Ile Leu
Ser Ser 2120	Leu Thr Val Thr Gln 2125	Leu Leu Arg Arg Leu 2130	His Gln Trp
Ile Ser 2135	Ser Glu Cys Thr Thr 2140	Pro Cys Ser Gly Ser 2145	Trp Leu Arg

Asp Ile Trp Asp Trp Ile Cys Glu Val Leu Ser Asp Phe Lys Thr
 2150 2155 2160
 Trp Leu Lys Ala Lys Leu Met Pro Gln Leu Pro Gly Ile Pro Phe
 2165 2170 2175
 Val Ser Cys Gln Arg Gly Tyr Arg Gly Val Trp Arg Gly Asp Gly
 2180 2185 2190
 Ile Met His Thr Arg Cys His Cys Gly Ala Glu Ile Thr Gly His
 2195 2200 2205
 Val Lys Asn Gly Thr Met Arg Ile Val Gly Pro Arg Thr Cys Arg
 2210 2215 2220
 Asn Met Trp Ser Gly Thr Phe Pro Ile Asn Ala Tyr Thr Thr Gly
 2225 2230 2235
 Pro Cys Thr Pro Leu Pro Ala Pro Thr Thr Gly Pro Cys Thr Pro
 2240 2245 2250
 Leu Pro Ala Pro Asn Tyr Lys Phe Ala Leu Trp Arg Val Ser Ala
 2255 2260 2265
 Glu Glu Tyr Val Glu Ile Arg Arg Val Gly Asp Phe His Tyr Val
 2270 2275 2280
 Ser Gly Met Thr Thr Asp Asn Leu Lys Cys Pro Cys Gln Ile Pro
 2285 2290 2295
 Ser Pro Glu Phe Phe Thr Glu Leu Asp Gly Val Arg Leu His Arg
 2300 2305 2310
 Phe Ala Pro Pro Cys Lys Pro Leu Leu Arg Glu Glu Val Ser Phe
 2315 2320 2325
 Arg Val Gly Leu His Glu Tyr Pro Val Gly Ser Gln Leu Pro Cys
 2330 2335 2340
 Glu Pro Glu Pro Asp Val Ala Val Leu Thr Ser Met Leu Thr Asp
 2345 2350 2355
 Pro Ser His Ile Thr Ala Glu Ala Ala Gly Arg Arg Leu Ala Arg
 2360 2365 2370

Gly Ser Pro Pro Ser Met Ala Ser Ser Ser Ala Ser Gln Leu Ser
 2375 2380 2385
 Ala Pro Ser Leu Lys Ala Thr Cys Thr Leu Ser Ala Pro Ser Leu
 2390 2395 2400
 Lys Ala Thr Cys Thr Ala Asn His Asp Ser Pro Asp Ala Glu Leu
 2405 2410 2415
 Ile Glu Ala Asn Leu Leu Trp Arg Gln Glu Met Gly Gly Asn Ile
 2420 2425 2430
 Thr Arg Val Glu Ser Glu Asn Lys Val Val Ile Leu Asp Ser Phe
 2435 2440 2445
 Asp Pro Leu Val Ala Glu Glu Asp Glu Arg Glu Val Ser Val Pro
 2450 2455 2460
 Ala Glu Ile Leu Arg Lys Ser Arg Arg Phe Ala Arg Ala Leu Pro
 2465 2470 2475
 Val Trp Ala Arg Pro Asp Tyr Asn Pro Pro Leu Val Glu Thr Trp
 2480 2485 2490
 Lys Lys Pro Asp Tyr Glu Pro Pro Val Val His Gly Cys Pro Leu
 2495 2500 2505
 Pro Pro Pro Arg Ser Pro Pro Val Pro Pro Pro Arg Lys Lys Arg
 2510 2515 2520
 Thr Val Val Leu Thr Glu Ser Thr Leu Ser Thr Ala Leu Ala Glu
 2525 2530 2535
 Leu Ala Thr Lys Ser Phe Gly Ser Ser Ser Glu Leu Ala Thr Lys
 2540 2545 2550
 Ser Phe Gly Ser Ser Ser Thr Ser Gly Ile Thr Gly Asp Asn Thr
 2555 2560 2565
 Thr Thr Ser Ser Glu Pro Ala Pro Ser Gly Cys Pro Pro Asp Ser
 2570 2575 2580
 Asp Val Glu Ser Tyr Ser Ser Met Pro Pro Leu Glu Gly Glu Pro
 2585 2590 2595
 Gly Asp Pro Asp Leu Ser Asp Gly Ser Trp Pro Gly Asp Ser Thr

2600	2605	2610
Val Ser 2615	Ser Gly Ala Asp Thr 2620	Glu Asp Val Val Cys Cys Ser Met 2625
Ser Tyr 2630	Ser Trp Thr Gly Ala 2635	Leu Val Thr Pro Cys Ala Ala Glu 2640
Glu Gln 2645	Lys Leu Pro Ile Asn 2650	Ala Leu Ser Asn Ser Leu Leu Arg 2655
His His 2660	Asn Leu Val Tyr Ser 2665	Thr Thr Ser Arg Ser Ala Cys Gln 2670
Arg Tyr 2675	Ser Thr Thr Ser Arg 2680	Ser Ala Cys Gln Arg Gln Lys Lys 2685
Val Thr 2690	Phe Asp Arg Leu Gln 2695	Val Leu Asp Ser His Tyr Gln Asp 2700
Val Leu 2705	Lys Glu Val Lys Ala 2710	Ala Ala Ser Lys Val Lys Ala Asn 2715
Leu Leu 2720	Ser Val Glu Glu Ala 2725	Cys Ser Leu Thr Pro Pro His Ser 2730
Ala Lys 2735	Ser Lys Phe Gly Tyr 2740	Gly Ala Lys Asp Val Arg Cys His 2745
Ala Arg 2750	Lys Ala Val Ala His 2755	Ile Asn Ser Val Trp Lys Asp Leu 2760
Leu Glu 2765	Asp Ser Val Thr Pro 2770	Ile Asp Thr Thr Ile Met Ala Lys 2775
Asn Glu 2780	Val Phe Cys Val Gln 2785	Pro Glu Lys Gly Gly Arg Lys Pro 2790
Ala Arg 2795	Leu Ile Val Phe Pro 2800	Asp Leu Gly Val Arg Val Cys Glu 2805
Lys Met 2810	Ala Leu Tyr Asp Val 2815	Val Ser Lys Leu Pro Leu Ala Val 2820
Met Gly 2825	Val Val Ser Lys Leu 2830	Pro Leu Ala Val Met Gly Ser Ser 2835

Tyr Gly Phe Gln Tyr Ser Pro Gly Gln Arg Val Glu Phe Leu Val
 2840 2845 2850
 Gln Ala Trp Lys Ser Lys Lys Thr Pro Met Gly Phe Ser Tyr Asp
 2855 2860 2865
 Thr Arg Cys Phe Asp Ser Thr Val Thr Glu Ser Asp Ile Arg Thr
 2870 2875 2880
 Glu Glu Ala Ile Tyr Gln Cys Cys Asp Leu Asp Pro Gln Ala Arg
 2885 2890 2895
 Val Ala Ile Lys Ser Leu Thr Glu Arg Leu Tyr Val Gly Gly Pro
 2900 2905 2910
 Leu Thr Asn Ser Arg Gly Glu Asn Cys Gly Tyr Arg Arg Cys Arg
 2915 2920 2925
 Ala Ser Gly Val Leu Thr Thr Ser Cys Gly Asn Thr Leu Thr Cys
 2930 2935 2940
 Tyr Ile Lys Ala Arg Ala Ala Cys Arg Ala Ala Gly Leu Gln Asp
 2945 2950 2955
 Cys Thr Met Leu Val Cys Gly Asp Asp Leu Val Val Ile Cys Glu
 2960 2965 2970
 Ser Ala Gly Asp Asp Leu Val Val Ile Cys Glu Ser Ala Gly Val
 2975 2980 2985
 Gln Glu Asp Ala Ala Ser Leu Arg Ala Phe Thr Glu Ala Met Thr
 2990 2995 3000
 Arg Tyr Ser Ala Pro Pro Gly Asp Pro Pro Gln Pro Glu Tyr Asp
 3005 3010 3015
 Leu Glu Leu Ile Thr Ser Cys Ser Ser Asn Val Ser Val Ala His
 3020 3025 3030
 Asp Gly Ala Gly Lys Arg Val Tyr Tyr Leu Thr Arg Asp Pro Thr
 3035 3040 3045
 Thr Pro Leu Ala Arg Ala Ala Trp Glu Thr Ala Arg His Thr Pro
 3050 3055 3060

Val Asn Ser Trp Leu Gly Asn Ile Ile Met Phe Ala Pro Thr Leu
3065 3070 3075

Trp Ala Arg Met Ile Leu Met Thr His Phe Phe Ser Val Leu Ile
3080 3085 3090

Ala Arg Asp Gln Leu Glu Gln Ala Leu Asn Cys Glu Ile Tyr Gly
3095 3100 3105

Ala Cys Tyr Ser Ile Glu Pro Leu Asp Leu Pro Pro Cys Tyr Ser
3110 3115 3120

Ile Glu Pro Leu Asp Leu Pro Pro Ile Ile Gln Arg Leu His Gly
3125 3130 3135

Leu Ser Ala Phe Ser Leu His Ser Tyr Ser Pro Gly Glu Ile Asn
3140 3145 3150

Arg Val Ala Ala Cys Leu Arg Lys Leu Gly Val Pro Pro Leu Arg
3155 3160 3165

Ala Trp Arg His Arg Ala Arg Ser Val Arg Ala Arg Leu Leu Ser
3170 3175 3180

Arg Gly Gly Arg Ala Ala Ile Cys Gly Lys Tyr Leu Phe Asn Trp
3185 3190 3195

Ala Val Arg Thr Lys Leu Lys Leu Thr Pro Ile Ala Ala Ala Gly
3200 3205 3210

Arg Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser Gly Gly
3215 3220 3225

Asp Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Phe Trp
3230 3235 3240

Phe Cys Leu Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu
3245 3250 3255

Pro Asn Arg
3260

<210> 2197

<211> 215

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 2197

Lys Val Lys Gln Trp Pro Leu Thr Glu Glu Lys Ile Lys Ala Leu Val
 1 5 10 15

Glu Ile Cys Thr Glu Met Glu Lys Glu Gly Lys Ile Ser Lys Ile Gly
 20 25 30

Pro Glu Asn Pro Tyr Asn Thr Pro Val Phe Ala Ile Lys Lys Lys Asp
 35 40 45

Ser Thr Lys Trp Arg Lys Leu Val Asp Phe Arg Glu Leu Asn Lys Arg
 50 55 60

Thr Gln Asp Phe Trp Glu Val Gln Leu Gly Ile Pro His Pro Ala Gly
 65 70 75 80

Leu Lys Lys Lys Lys Ser Val Thr Val Leu Asp Val Gly Asp Ala Tyr
 85 90 95

Phe Ser Val Pro Leu Asp Lys Asp Phe Arg Lys Tyr Thr Ala Phe Thr
 100 105 110

Ile Pro Ser Ile Asn Asn Glu Thr Pro Gly Ile Arg Tyr Gln Tyr Asn
 115 120 125

Val Leu Pro Gln Gly Trp Lys Gly Ser Pro Ala Ile Phe Gln Ser Ser
 130 135 140

Met Thr Lys Ile Leu Glu Pro Phe Arg Lys Gln Asn Pro Asp Ile Val
 145 150 155 160

Ile Tyr Gln Tyr Met Asp Asp Leu Tyr Val Gly Ser Asp Leu Glu Ile
 165 170 175

Gly Gln His Arg Thr Lys Ile Glu Glu Leu Arg Gln His Leu Leu Arg
 180 185 190

Trp Gly Phe Thr Thr Pro Asp Lys Lys His Gln Lys Glu Pro Pro Phe
 195 200 205

Leu Trp Met Gly Tyr Glu Leu
 210 215

<210> 2198

<211> 17

Pro Val Phe Ala Ile Lys Lys Lys Asn Ser Thr Lys Trp Arg Lys Leu
 1 5 10 15

Val

<210> 2202
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 5

<400> 2202

Phe Ala Ile Lys Lys Lys Asp Ser Asp Lys Trp Arg Lys Leu Val Asp
 1 5 10 15

Phe

<210> 2203
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 6

<400> 2203

Ala Ile Lys Lys Lys Asp Ser Thr Arg Trp Arg Lys Leu Val Asp Phe
 1 5 10 15

Arg

<210> 2204
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 7

<400> 2204

Lys Asp Ser Thr Lys Trp Arg Lys Val Val Asp Phe Arg Glu Leu Asn
 1 5 10 15

Lys

<212> PRT
<213> Artificial

<220>
<223> HIV-1 RT peptide 1

<400> 2198

Ala Leu Val Glu Ile Cys Thr Glu Leu Glu Lys Glu Gly Lys Ile Ser
1 5 10 15

Lys

<210> 2199
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 RT peptide 2

<400> 2199

Glu Ile Cys Thr Glu Met Glu Lys Asp Gly Lys Ile Ser Lys Ile Gly
1 5 10 15

Pro

<210> 2200
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 RT peptide 3

<400> 2200

Asn Thr Pro Val Phe Ala Ile Lys Arg Lys Asp Ser Thr Lys Trp Arg
1 5 10 15

Lys

<210> 2201
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 RT peptide 4

<400> 2201

<210> 2205
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 RT peptide 8
<400> 2205

Asp Ser Thr Lys Trp Arg Lys Leu Thr Asp Phe Arg Glu Leu Asn Lys
1 5 10 15

Arg

<210> 2206
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 RT peptide 9
<400> 2206

Val Gln Leu Gly Ile Pro His Pro Gly Gly Leu Lys Lys Lys Lys Ser
1 5 10 15

Val

<210> 2207
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 RT peptide 10
<400> 2207

Pro His Pro Ala Gly Leu Lys Lys Asn Lys Ser Val Thr Val Leu Asp
1 5 10 15

Val

<210> 2208
<211> 17
<212> PRT
<213> Artificial

<220>

<223> HIV-1 RT peptide 11

<400> 2208

Asp Val Gly Asp Ala Tyr Phe Ser Ile Pro Leu Asp Lys Asp Phe Arg
 1 5 10 15

Lys

<210> 2209

<211> 17

<212> PRT

<213> Artificial

<220>

<223> HIV-1 RT peptide 12

<400> 2209

Arg Tyr Gln Tyr Asn Val Leu Pro Met Gly Trp Lys Gly Ser Pro Ala
 1 5 10 15

Ile

<210> 2210

<211> 17

<212> PRT

<213> Artificial

<220>

<223> HIV-1 RT peptide 13

<400> 2210

Lys Gln Asn Pro Asp Ile Val Ile Cys Gln Tyr Met Asp Asp Leu Tyr
 1 5 10 15

Val

<210> 2211

<211> 17

<212> PRT

<213> Artificial

<220>

<223> HIV-1 RT peptide 14

<400> 2211

Pro Asp Ile Val Ile Tyr Gln Tyr Val Asp Asp Leu Tyr Val Gly Ser
 1 5 10 15

Asp

<210> 2212
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 15

<400> 2212

Pro Asp Ile Val Ile Tyr Gln Tyr Ile Asp Asp Leu Tyr Val Gly Ser
 1 5 10 15

Asp

<210> 2213
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 16

<400> 2213

Ile Tyr Gln Tyr Met Asp Asp Leu Leu Val Gly Ser Asp Leu Glu Ile
 1 5 10 15

Gly

<210> 2214
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 17

<400> 2214

Gln Tyr Met Asp Asp Leu Tyr Val Ala Ser Asp Leu Glu Ile Gly Gln
 1 5 10 15

His

<210> 2215

<211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 18

<400> 2215

Ile Glu Glu Leu Arg Gln His Leu Trp Arg Trp Gly Phe Phe Thr Pro
 1 5 10 15

Asp

<210> 2216
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 19

<400> 2216

Gln His Leu Leu Arg Trp Gly Phe Phe Thr Pro Asp Lys Lys His Gln
 1 5 10 15

Lys

<210> 2217
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 20

<400> 2217

Gln His Leu Leu Arg Trp Gly Phe Tyr Thr Pro Asp Lys Lys His Gln
 1 5 10 15

Lys

<210> 2218
 <211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> HIV-1 RT peptide 21

<400> 2218

Arg Trp Gly Phe Thr Thr Pro Asp Gln Lys His Gln Lys Glu Pro Pro
 1 5 10 15

Phe

<210> 2219

<211> 99

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 2219

Pro Gln Ile Thr Leu Trp Gln Arg Pro Leu Val Thr Ile Lys Ile Gly
 1 5 10 15

Gly Gln Leu Lys Glu Ala Leu Leu Asp Thr Gly Ala Asp Asp Thr Val
 20 25 30

Leu Glu Glu Met Asn Leu Pro Gly Arg Trp Lys Pro Lys Met Ile Gly
 35 40 45

Gly Ile Gly Gly Phe Ile Lys Val Arg Gln Tyr Asp Gln Ile Leu Ile
 50 55 60

Glu Ile Cys Gly His Lys Ala Ile Gly Thr Val Leu Val Gly Pro Thr
 65 70 75 80

Pro Val Asn Ile Ile Gly Arg Asn Leu Leu Thr Gln Ile Gly Cys Thr
 85 90 95

Leu Asn Phe

<210> 2220

<211> 17

<212> PRT

<213> Artificial

<220>

<223> HIV-1 protease peptide 1

<400> 2220

Gln Ile Thr Leu Trp Gln Arg Pro Ile Val Thr Ile Lys Ile Gly Gly
 1 5 10 15

Gln

<210> 2221
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 protease peptide 2

<400> 2221

Thr Ile Lys Ile Gly Gly Gln Leu Arg Glu Ala Leu Leu Asp Thr Gly
1 5 10 15

Ala

<210> 2222
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 protease peptide 3

<400> 2222

Ala Leu Leu Asp Thr Gly Ala Asp Asn Thr Val Leu Glu Glu Met Asn
1 5 10 15

Leu

<210> 2223
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 protease peptide 4

<400> 2223

Leu Pro Gly Arg Trp Lys Pro Lys Ile Ile Gly Gly Ile Gly Gly Phe
1 5 10 15

Ile

<210> 2224
<211> 17
<212> PRT
<213> Artificial

<220>

<223> HIV-1 protease peptide 5

<400> 2224

Gly Arg Trp Lys Pro Lys Met Ile Val Gly Ile Gly Gly Phe Ile Lys
1 5 10 15

Val

<210> 2225

<211> 17

<212> PRT

<213> Artificial

<220>

<223> HIV-1 protease peptide 6

<400> 2225

Trp Lys Pro Lys Met Ile Gly Gly Val Gly Gly Phe Ile Lys Val Arg
1 5 10 15

Gln

<210> 2226

<211> 17

<212> PRT

<213> Artificial

<220>

<223> HIV-1 protease peptide 7

<400> 2226

Lys Met Ile Gly Gly Ile Gly Gly Leu Ile Lys Val Arg Gln Tyr Asp
1 5 10 15

Gln

<210> 2227

<211> 17

<212> PRT

<213> Artificial

<220>

<223> HIV-1 protease peptide 8

<400> 2227

Met Ile Gly Gly Ile Gly Gly Phe Val Lys Val Arg Gln Tyr Asp Gln
1 5 10 15

Ile

<210> 2228
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 protease peptide 9

<400> 2228

Lys Val Arg Gln Tyr Asp Gln Ile Pro Ile Glu Ile Cys Gly His Lys
1 5 10 15

Ala

<210> 2229
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 protease peptide 10

<400> 2229

Thr Val Leu Val Gly Pro Thr Pro Ala Asn Ile Ile Gly Arg Asn Leu
1 5 10 15

Leu

<210> 2230
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 protease peptide 11

<400> 2230

Thr Val Leu Val Gly Pro Thr Pro Thr Asn Ile Ile Gly Arg Asn Leu
1 5 10 15

Leu .

<210> 2231

<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 protease peptide 12

<400> 2231

Leu Val Gly Pro Thr Pro Val Asn Val Ile Gly Arg Asn Leu Leu Thr
1 5 10 15

Gln

<210> 2232
<211> 17
<212> PRT
<213> Artificial

<220>
<223> HIV-1 protease peptide 13

<400> 2232

Val Asn Ile Ile Gly Arg Asn Leu Met Thr Gln Ile Gly Cys Thr Leu
1 5 10 15

Asn